# DOCUMENT RESUME

ED 259 253 CG 018 354

| | |
|---|---|
| AUTHOR | Levitt-Merin, Marta; Sutter, Sharon Kingdon |
| TITLE | Hawaii Demonstration Project to Avert Unintended Teenage Pregnancy: 1978-1982. Final Report. Executive Summary. |
| INSTITUTION | Hawaii State Dept. of Health, Honolulu. |
| PUB DATE | Mar 83 |
| NOTE | 183p. |
| PUB TYPE | Reports - General (140) |
| EDRS PRICE | MF01/PC08 Plus Postage. |
| DESCRIPTORS | *Adolescents; *Early Parenthood; *Family Planning; *Pregnancy; *Prevention; *Program Development; Program Evaluation |
| IDENTIFIERS | *Hawaii |

ABSTRACT

This final report provides a descriptive overview of three approaches which the Hawaii Demonstration Project initiated to reduce unintended teenage pregnancies. Project evaluation findings are summarized; both qualitative and quantitative data are presented for a comprehensive picture of the project and its input. Project limitations and successes are discussed. Historical and demographic perspectives on the incidence of teenage pregnancy and services available in Hawaii are provided, and the organization of the project is described. Descriptions of the three individual projects are drawn from the final reports of project coordinators. The projects described are: (1) a hospital-based project at Kapiolani-Children's Medical Center, which investigated how to reduce teenage pregnancies through counseling and educational intervention in the setting of a major obstetrics and gynecology hospital; (2) a community-based network approach on Kauai, which involved the planning, monitoring and evaluating of innovative preventive programs; and (3) a project coordinated with the Hawaii State Department of Education Windward School District, which developed and tested Family Life Education Supplements K-12 for integration into school health curricula. The Central Support Unit and its functions and activities are discussed. Overall project findings are presented which relate to characteristics of pregnant teenagers, networking, and reducing adolescent pregnancy. Recommendations are included for future program planning strategies. (NRB)

***********************************************************************
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
***********************************************************************

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Sharon K. Sutter

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

# HAWAII DEMONSTRATION PROJECT TO AVERT UNINTENDED TEENAGE PREGNANCY: 1978-1982:

## FINAL REPORT

### Executive Summary

Marta Levitt-Merin
Tri-Project Coordinator

Sharon Kingdon Sutter
Principal Investigator

March 1983

Family Planning Services Section
Hawaii State Department of Health

CG 018354

# ACKNOWLEDGMENTS

The successes of the Hawaii Demonstration Project to Avert Unintended Teenage Pregnancy were made possible through the combined efforts of a number of individuals, community agencies and State departments in Hawaii.

The sections in this report on the three individual projects were excerpted from final reports prepared by our three project coordinators: Jane Hale, Kapiolani Teen Intervention Project; George Fellez, Family Life Education and Counseling Demonstration Project; and Jesse Wells, Kauai Teen Demonstration Project.

Deep appreciation goes to Niki Miller, former Tri-Project Coordinator and Bonnie Lau-Honma, former Kauai Teen Demonstration Project Coordinator for two and a half years of hard work and dedication in the organization, planning and implementation of the Project.

On Kauai, we would like to thank all the members of the KTDP Advisory Group; Dr. Robert Melton, former District Health Officer; and our Parenting teacher Merle Honjio for working toward the goal of reducing teen pregnancies on Kauai.

Acknowledgment goes to the University of Hawaii John A. Burns School of Medicine's Gynecology and Obstetrics Department and the School of Public Health's Maternal and Child Health Department for their critical roles in the conceptualization, planning, advising and support of the Kapiolani Teen Intervention Project.

To the Department of Education's State Health Curriculum Section and Windward School District, we offer our gratitude for believing in the need for Family Life Education in Hawaii's schools and for allowing us to assist in the development of FLE materials that will make a difference in the lives of our young people.

For their encouragement and interest in the problems of teenage pregnancy prevention and care in Hawaii, special thanks are due to members of the Hawaii Teen Pregnancy and Parenting Council and to KITV-4 NEWS and Lynn Waters for producing the mini news documentary, "Mom, I'm Pregnant."

Mahalo to Art Tani for designing the graphics and cover in this report and to Linda Chan for over three years of dedicated office work, typing, bookkeeping and good humor.

As Principal Investigator, we want to show our fond appreciation to Sharon Kingdon Sutter who has been responsive to the multi-faceted needs of our project communities in envisioning realistic approaches that embodied both traditional and changing life in Hawaii.

The impact of any service-oriented project can only be as great as the participation of the service recipients. It is for this reason that we send our Aloha to all the teens and their parents who opened up their personal lives to us and let us help them to make a better future for Hawaii.

# TABLE OF CONTENTS

ACKNOWLEDGEMENTS . . . . . . . . . . . . . . . . . . . . . . ii

LIST OF TABLES . . . . . . . . . . . . . . . . . . . . . . . . vii

LIST OF FIGURES . . . . . . . . . . . . . . . . . . . . . . . ix

RETROSPECTIVE AND FOREWORD. . . . . . . . . . . . . . . . . x

SECTION I. INTRODUCTION . . . . . . . . . . . . . . . . . . . 1

SECTION II. TEEN PREGNANCY: A LOCAL PERSPECTIVE. . . . . 4

A History of Teenage Pregnancy in Hawaii . . . . . . . . . . . . 5
Teen Pregnancy Services in Perspective . . . . . . . . . . . . . 11
The Hawaiian Islands Flavor the Problem . . . . . . . . . . . . 17

1. Socio-Economic Setting. . . . . . . . . . . . . . . . . . . . 17
2. Closed Communities . . . . . . . . . . . . . . . . . . . . . 20

Contemporary Issues Regarding Adolescent Pregnancy in Hawaii. . 22

1. Current Trends in Adolescent Pregnancies Statewide . . . . 22
2. Ethnicity and Teenage Pregnancy. . . . . . . . . . . . . . . 34

SECTION III. THE DEVELOPMENT AND ORGANIZATION OF THE HAWAII DEMONSTRATION PROJECT TO AVERT UNINTENDED TEENAGE PREGNANCY . . . . . . . . . . . . . . . . . . . . 42

SECTION IV. THE THREE PROJECTS: OPERATIONS AND IMPACT . 47

The Kauai Teen Demonstration Project . . . . . . . . . . . . . 48

The Kauai Setting . . . . . . . . . . . . . . . . . . . . . . . 48

Adolescent pregnancies prior to the Project. . . . . . . . . . 49
Kauai's agencies serving adolescents . . . . . . . . . . . . . 50
Kauai's Children Study . . . . . . . . . . . . . . . . . . . . 51
Impact of setting on project . . . . . . . . . . . . . . . . . 53

Project Goals and Objectives . . . . . . . . . . . . . . . . . . 53

The networking approach . . . . . . . . . . . . . . . . . . . . 56
Needs/resource assessment of target population. . . . . . . 56

Description of Sub-projects and Central Office . . . . . . . . . 57

Kauai Teen Project central office . . . . . . . . . . . . . . . 58
Hawaii Planned Parenthood teen health counseling program . 61
FSSP Teen Support programs. . . . . . . . . . . . . . . . . . 64
Teen parenting and child care lab program . . . . . . . . . . 69

Impact of Kauai Teen Demonstration Project. . . . . . . . . . . 76

Analysis of networking . . . . . . . . . . . . . . . . . . . . 76
Statistical findings . . . . . . . . . . . . . . . . . . . . . . 80
Conclusions . . . . . . . . . . . . . . . . . . . . . . . . . . 83

The Kapiolani Teen Intervention Project . . . . . . . . . . . . . . . . 86

  Project Goals and Objectives . . . . . . . . . . . . . . . . . . . . . 87
  Kapiolani-Children's Medical Center: Project Site . . . . . . . . . . 88
  Project Service Components . . . . . . . . . . . . . . . . . . . . . 92
  Measurements of Project Success . . . . . . . . . . . . . . . . . . . 100

    Methods of evaluation . . . . . . . . . . . . . . . . . . . . . . 100
    Analysis of client data . . . . . . . . . . . . . . . . . . . . . 101

  Project Services Evaluation Findings . . . . . . . . . . . . . . . . 107
  Cost Effectiveness of Program . . . . . . . . . . . . . . . . . . . 110
  Implications of the Program . . . . . . . . . . . . . . . . . . . . 112

Family Life Education and Counseling Demonstration Project . . . . . 113

  Project Background . . . . . . . . . . . . . . . . . . . . . . . . . 113

    Goals and objectives . . . . . . . . . . . . . . . . . . . . . . 113
    Need for family life education in Hawaii . . . . . . . . . . . . 115
    Project setting . . . . . . . . . . . . . . . . . . . . . . . . . 117

  Needs Assessment . . . . . . . . . . . . . . . . . . . . . . . . . . 119

    Assessment activities . . . . . . . . . . . . . . . . . . . . . . 119
    Needs assessment findings . . . . . . . . . . . . . . . . . . . . 121
    Factors leading to unintended teen pregnancies . . . . . . . . . 122

  Curriculum Revision and Review . . . . . . . . . . . . . . . . . . . 124

    Windward Health Advisory Council (WHAC) . . . . . . . . . . . . . 124
    Content review and recommendations by WHAC . . . . . . . . . . . 125
    Structure of supplements . . . . . . . . . . . . . . . . . . . . 127

  Evaluation of FLE Supplements . . . . . . . . . . . . . . . . . . . . 130

    Pilot testing . . . . . . . . . . . . . . . . . . . . . . . . . . 130
    DOE evaluation and recommendations for
      Statewide implementation . . . . . . . . . . . . . . . . . . . 133
    Training workshops for teachers . . . . . . . . . . . . . . . . . 134

  Achievement of Project Objectives . . . . . . . . . . . . . . . . . 134

SECTION V CENTRAL SUPPORT UNIT . . . . . . . . . . . . . . . . . . . 137

Functions of the Central Support Unit . . . . . . . . . . . . . . . . 137
Central Support Unit Activities . . . . . . . . . . . . . . . . . . . 140

  Community Awareness, Training and Dissemination
    of Project Findings . . . . . . . . . . . . . . . . . . . . . . . 140
  Data Collection and Analysis . . . . . . . . . . . . . . . . . . . . 144

Hawaii Teen Pregnancy and Parenting Council (HTPP) . . . . . . . . . 146

SECTION VI OVERALL PROJECT FINDINGS . . . . . . . . . . . . . . . . . 151

Characteristics of Pregnant Teenagers in Hawaii . . . . . . . . . . . 152

  Adolescent Motivation for Pregnancy Survey . . . . . . . . . . . . . 152

    Survey findings . . . . . . . . . . . . . . . . . . . . . . . . . 153
    Conclusions of survey . . . . . . . . . . . . . . . . . . . . . . 157

Family Support Services Psycho-social Assessment . . . . . . . . 159

Conclusions of psycho-social assessment . . . . . . . . . . . 162

Networking . . . . . . . . . . . . . . . . . . . . . . . . . . 163

Reducing Adolescent Fertility . . . . . . . . . . . . . . . . . 165

Primary Prevention . . . . . . . . . . . . . . . . . . . . . 165

Going Beyond Family Planning . . . . . . . . . . . . . . . . 166

Conclusions and Recommendations . . . . . . . . . . . . . . . . 168

Conclusions . . . . . . . . . . . . . . . . . . . . . . . . . 168

Recommendations . . . . . . . . . . . . . . . . . . . . . . . 169

# LIST OF TABLES

Table | Page
1 Reproductive Events by Type and Year to Females Under Age 18 in the State of Hawaii for Federal FY 1975-78 . . . . . . . 6
2 Windward Oahu Women 10-19 Years By Live Birth, Fetal Deaths, Pregnancy Rate, Prematurity and Infant Mortality 1968-1972 . . . . . . . . . . . . . . . . . . . . . . . . . . . 7
3 Type of Birth Control Planned by Teen Parents . . . . . . . . . 10
4 Repeat Rate of Hospital Abortion Patients, State of Hawaii . . . . 10
5 Percent of State Population by Ethnicity, Hawaii, 1980. . . . . . 17
6 Estimated Percentage of Population by Religion, Hawaii, 1979 . . 18
7 KAP Survey Responses or Age at First Intercourse . . . . . . . 22
8 Percent of Teenage Family Planning Clients by Ethnicity, 1981, Hawaii State, Publicly Subsidized Clinics Only . . . . . . . . . 23
9 Type of Contraceptive Received at Family Planning Clinic by Age, 1981, Hawaii, Publicly Subsidized Clinics Only. . . . . . . 24
10 Reproductive Events by Type and Year to Females Under Age 18 in the State of Hawaii 1976-1981 . . . . . . . . . . . . . . 25
11 Number of Pregnancies to Females 13-17 Fed. F.Y. 1976-1981 . . 26
12 Repeat Pregnancies by Year to Teens Under 18, State of Hawaii 1979-1981 . . . . . . . . . . . . . . . . . . . . . . . . . 34
13 Five-Year Average of Teenage Fertility Rates by Ethnicity, 1975-1979, Hawaii . . . . . . . . . . . . . . . . . . . . . . 35
14 Reproductive Events by Type and Year to Females Under Age 18, on Kauai . . . . . . . . . . . . . . . . . . . . . . . 50
15 Counseling and Follow-up Contacts . . . . . . . . . . . . . . . 62
16 Project Impact on Teens Under 18 Years Old Seeking HPP Clinic Services . . . . . . . . . . . . . . . . . . . . . . . . . 63
17 Three-Year-Averaged Reproductive Rates by Type to Females Under Age 18 on Kauai, Federal F.Y. 1975-1981 . . . . . . . . 81
18 Repeat Rate of Hospital Abortion Patients, State of Hawaii . . . . 87

Table Page

19 Teen Intervention Program 1979-1982, Ethnic Distribution of Clients Compared to the State of Hawaii . . . . . . . . . . . . . . . . . . . . . . . . . . 101

20 Teen Intervention Program 1979-1982, Repeat Pregnancies by Year Entered Program Cohort . . . . . . . . . . . . . . 104

21 Teen Intervention Program 1979-1982—Program Repeat Pregnancies by Month After First Pregnancy Outcome and Type of Outcome . . . . . . . . . . . . . . . . . . . . . 106

22 Estimated Savings to State of Hawaii, Result of Repeat Pregnancies Averted Through Kapiolani Teen Intervention Program Services . . . . . . . . . . . . . . . . . . . . . 111

23 Pregnancies to Girls 13-17, Windward Oahu District (Fed. F.Y. 1976-1981) . . . . . . . . . . . . . . . . . . . . . 118

24 What Do You Think is the Best Age to Have Your First Baby?. 154

25 Why Do Females Your Age Get Pregnant? . . . . . . . . . . 155

26 Partners' Response to Pregnancy . . . . . . . . . . . . . . 156

27 Reasons Why Respondents Would or Would Not Consider Adoption . . . . . . . . . . . . . . . . . . . . . . . . 158

28 Ethnicity of Fathers and Client Teen Mothers . . . . . . . . 160

29 Percentage of Inappropriate Social Acts . . . . . . . . . . . 161

# LIST OF FIGURES

| Figure | | Page |
|---|---|---|
| 1 | Hawaii Age Specific Fertility Rates per 1,000 Females (Fed. F.Y. 1976-1981) | 27 |
| 2 | Births to Mothers Getting Care After First Trimester Fed. F.Y. 1976-1980 by Age | 29 |
| 3 | Births to Mothers Getting No Prenatal Care by Age of Mother per 1,000 Live Births 1976-1980, Hawaii | 30 |
| 4 | Percent of Pregnant Students Not Interested in Attending School in the Windward School District | 31 |
| 5 | Percentage of Students Dropping Out of School in Continuing Education Class | 32 |
| 6 | Illegitimacy Ratio by Age of Mother per 1,000 Live Births, Fed. F.Y. 1076-1980, Hawaii | 33 |
| 7 | Age Specific Pregnancy Rates per 1,000 by Ethnicity for Fed. F.Y. 1981 | 36 |
| 8 | Percentage of Pregnancies to Females 15-17 by Ethnicity, Fed. F.Y. 1981 | 37 |
| 9 | Age Specific Birth Rates by Ethnicity, Fed. F.Y. 1981, Hawaii State | 39 |
| 10 | Age Specific Abortion Ratios F.Y. 1981 by Ethnicity per 100 Live Births for 15-17 vs. 15-44 Age Groups | 40 |
| 11 | Trends in Age Specific Birth Rate by Ethnicity for Age Group 15-17, Hawaii State, 1976-1981 (per 1,000 females) | 41 |
| 12 | Organizational Chart | 45 |
| 13 | In-School Referral System | 59 |
| 14 | Kauai Teen Demonstration Project Networking Sociogram | 79 |
| 15 | Teenage Pregnancy Rates, Kauai County and Hawaii State (1975-1981) | 82 |
| 16 | Teen Intervention Program Services | 94 |
| 17 | Relationship among Foundation Program Objectives, Instructional Area Objectives, Student Performance Objectives, Health Objectives, as well as Family Life Education Supplement K-6 Objectives | 128 |

## RETROSPECTIVE AND FOREWORD

The Hawaii Demonstration Project to Reduce Unintended Pregnancy came about because of two essential factors: first, there was a growing awareness in Hawaii of the need to examine and respond to the "problem" of teen pregnancy more directly and specifically than had been possible so far; and secondly, resources under federal Title X family planning funding became available on a special project basis for just such activities.

The situation in Hawaii in the late 1970s, while shaped by unique multicultural and geographic features, nonetheless was similar to that on the mainland USA: relatively high fertility rates among sexually active teens, with increasing rates among younger teens; of teens coming to family planning clinics, relatively high proportions of them doing so for pregnancy testing, and many of them, in fact, pregnant. Repeat pregnancy rates among teens were also thought to be high. Teens were not participating in fertility management to the degree that adults were, yet the cost to teens and society for those "unintended"/"unwanted" pregnancies was great indeed.

The Legislature, in response to a ten-year effort, agreed in 1979 to a statutory change which allowed minors to consent for family planning services. A provision required counseling to help youngsters communicate with their parents. Clearly however, given the relative lateness with which teens came to clinics, and the relative brevity of such visits, more would be needed earlier in order to "stem the tide" of teen pregnancy, rather than "halt the epidemic" which was the popular usage then.

As we developed the proposal, we sensed the need to explore several approaches, to examine a variety of situations and strategies. We focused on minor teens—those under 18; we rejected the complexity and cost of formal controlled research. We opted for three "applied demonstrations" to be actually developed in selected sites, responsive to the priorities of community networking, strengthened formal education, and hospital-based support services.

The early decision to let the planning process develop at the community level and not to impose rigid central control, resulted in projects being shaped by their respective communities, in a few cases leaving the "original" objectives relics of a bygone era. Other changes affected the outcomes. In Kauai, for example, an expected parallel study of the community-wide health network never materialized, leaving the project without some of the baseline information it was found to lack on evaluation.

The projects were launched with the efforts of a number of skilled staff, each of whom brought timely talents. Niki Miller, a very sensitive and experienced professional with local community development experience and health education skills led the projects through their development and middle implementation phases.

Marta Levitt-Merin brought to the final year of the project, research and evaluation skills and a remarkable dynamism which not only sustained the implementation phase, but also expanded it, and rallied support for continuation of many of the projects. Marta wrote the excellent proposal which was funded for the Adolescent Family Life Project.

In Kauai, the District Health Officer, Bob Melton, organized a dedicated planning team which, with coordinator Bonnie Lau, moved the project in directions so acceptable to the community that the committee and the key components have been carried on by the community after the termination of the demonstration. Bonnie herself married and settled in Kauai, and remains an active link in the human services network there.

Jesse Wells brought the evaluation perspective to the Kauai project, helping the participants to better assess the networking connections as they determined the outcomes and further needs of the community.

Colleagues in the Department of Education developed the Family Life Education Project (FLE) as a fully integrated opportunity to strengthen the formal education program, kindergarten through twelfth grade. Dr. Mildred Highashi, Head of the Sciences and Humanities Section in the Department's Office of Instructional Resources, and Jean Paty, Specialist for Health, planned and initiated the project with input from the districts. George Fellez, the project coordinator, worked closely with Miss Paty, her successor, Lynda Miyamoto Asato, and Annette Muriyama in the Windward District to produce excellent resource guides and teacher training modules which are now prototypes for the development of other curriculum supplements. In contrast to other efforts in this sensitive and often controversial area, the FLE is a dynamic example of successfully meeting the diverse needs of students, parents, schools, and the community.

In the Kapiolani-Children's Medical Center project, the need was great for in-depth support and counseling of already pregnant teens. The project thus received much initial support from the hospital, and actually helped demonstrate and 'seed' a needed social services unit within the institution. Under the initial direction of Wendy Craytor and Carlayna Nakamura, the project grew quickly, responding to the crisis intervention needs of teens in labor and delivery rooms, after pregnancy diagnosis, and post-abortion. Later Jane Hale strengthened the data collection, long-term follow-up and support, outcome analysis and evaluation aspects of the project. Ms. Hale also focused the teen advocate component, finding that fewer, well-selected, slightly-older-than-peer women who had successfully coped with teen pregnancy were the best role models and project team members.

Important areas for further investigation and service development suggested by the Kapiolani Project, such as the relationship of prior sexual abuse to early teen pregnancy, the profile of risk for teen pregnancy, the need for a long-term case management system for teen parents coordinated through strong community networks, and the need for innovative systems to appropriately sustain support for young teens post-abortion, the most difficult group to establish and maintain contact with.

Much has been accomplished through this project. The following are some of the more important of these:

- A great deal of data about teens, in Hawaii as well as nationally, has been compiled; a considerable response file has been gathered and is available for reference at the Teen Project office in the Department of Health.

- An advisory group, the Teen Pregnancy and Parenting Council, was initiated and has developed into an independently incorporated body with wide membership who have actively and successfully advocated for funded and improved teen programs.

- Several thousand young people have been given information and counseling to help them prevent unintended pregnancy and to rethink whether they want early pregnancy. Many others have been assisted with support services to themselves and their families to cope more positively with pregnancy and to postpone the next.

- Outstanding curriculum supplement resources and teacher training modules have been developed for use throughout the Department of Education.

Better understanding has been gained about community networking and mechanisms for supporting the process of its development.

A number of the activities begun have been incorporated into on-going programs, some supported by local agencies, individual communities, and the State Legislature.

A new long-term project, the Adolescent Family Life Project, has been developed and federally funded, utilizing the findings and some of the models explored in the "first" teen project. The new project will further refine and systematize the concepts of community networks for early teen pregnancy prevention and teen pregnancy care and support. Placing these activities in three communities not previously served in the demonstration project will be a further step in building an eventual statewide program.

Finally, a word of special thanks to Jim Hauser, Department of Health and Human Services Project Officer and now Chief, Office of Family Planning, Region IX. Jim originally facilitated this project being brought to Hawaii and supported our every effort throughout the entire project. In many ways, Jim is our idea of the model "fed"—he is expert, knowledgeable, holds up high standards, guides non-intrusively, is skilled in planning and negotiating, and always, always supportive of genuine efforts to enhance human services.

Thanks to all who have assisted and contributed in this project.

Mahalo nui loa,

Sharon Kingdon Sutter

## SECTION I. INTRODUCTION

In October 1978, Department of Health, Education and Welfare approved Title X funding for the Hawaii Demonstration Project to Avert Unintended Teenage Pregnancy. The Research Corporation of the University of Hawaii was contracted through the Hawaii Department of Health Family Planning Services Section to manage the three-year demonstration project.

The project tested three different approaches to reduce unintended teenage pregnancies to girls under 18 by 25 percent within three years. The three projects were as follows:

1. a hospital-based project at Kapiolani-Children's Medical Center investigated how to reduce the incidence of repeat pregnancies to girls under 18 through counseling and educational intervention in the setting of a major OB-GYN hospital;
2. a community-based network approach was demonstrated on the island of Kauai by means of a committee representing a broad range of service agencies and individuals involved in the planning, monitoring and evaluating of innovative preventive programs;
3. a project coordinated with the Hawaii State Department of Education Windward School District developed and tested Family Life Education Supplements K-12 for integration into the Statewide School Health Curriculum.

These projects were coordinated, monitored and evaluated by a Central Support Office located at the Department of Health.

This report provides a descriptive overview of these three distinctive approaches and summarizes project evaluation findings. Qualitative and quantitative data are presented for a more comprehensive picture of the project and its impact. So that others may use this information in program planning, project limitations as well as successes are included. It is hoped that the content of this final report will assist others in their endeavor to reduce unintended adolescent pregnancy. More detailed reports of the individual projects as well as resource materials developed during the project are available through the Hawaii State Department of Health Family Planning Services Section.

Section II of this report provides historical and demographic perspectives on the incidence of teenage pregnancy and services available in Hawaii. The unique quality of Hawaii is shown to have influence on the problem of teenage pregnancy and programs attempting to reduce adolescent fertility rates.

Section III briefly describes the organization of the project and its origin.

Section IV describes each of the three individual projects. Much of this section comes from the individual final reports written by project coordinators. Each project is briefly described in terms of organizational structure, program activities, clients, accomplishments and evaluation findings.

The Central Support Unit is discussed in Section V. The functions and activities are explained in terms of project objectives.

The final Section VI provides overall project findings related to characteristics of pregnant teens, networking and reducing adolescent pregnancy. Recommendations are included for future program planning strategies.

## SECTION II. TEEN PREGNANCY: A LOCAL PERSPECTIVE

### A History of Teenage Pregnancy in Hawaii

The 1970s brought with it a wave of articles and studies important in documenting the problems related to teenage pregnancy in Hawaii. The statistics discussed in this section represent local research conducted prior to the demonstration project. A brief historical perspective of services, state policies and statistics regarding adolescent pregnancy prevention and care in Hawaii is given to identify events leading to the development of the demonstration project. These historical antecedents of the project, furthermore, provide an important perspective for analyzing project impact.

The statistics presented in this report, unless otherwise indicated, will refer to teens under 18. In recent years, the Hawaii Department of Health had decided to focus statistical analysis of teenage fertility to the under 18 year age group. In Hawaii, the 18-19 age group are not considered high risk for maternal and infant morbidity and mortality associated with the earlier teen years. Although the approach at times makes Hawaii's statistics difficult to compare with national studies of 15-19 year age groups, we have found this method more helpful in conducting statewide needs assessments and program evaluations. For the purpose of this report, statistics for teens in Hawaii are calculated for either the 13-17 age group or the <15 and 15-17 age groups.

Department of Health Statistics compiled by Hawaii Planned Parenthood indicated that between 1960 and 1970 there was a steady and consistent increase in the number of reported pregnancies to teens in Hawaii. The number of pregnancies to teens under 15 years of age had increased from 13 to 52 during the ten years; similarly, there was a rise in the number of pregnancies to teens 15-19 from 1,919 to 2,834.*

Pregnancies to girls under 15 hit a peak in 1973 with 81 pregnancies statewide. Between 1973 and 1979, pregnancies to teens under 18 have remained relatively stable ranging from 1,261 in 1973 to 1,118 in 1978 with minor yearly fluctuations in actual numbers. During 1973-1978, the average yearly number of pregnancies to minor teens was 1,162. Table 1 provides a description of teenage pregnancy and their outcomes for the years 1975-1978 with pregnancy rates for females 13-17. The data presented indicate a trend toward fewer births and standard fetal deaths and higher elective abortions for the years 1975 through 1978.

---

*Taken from statistics compiled by Hawaii Planned Parenthood (1978) from Department of Health Statistical Reports.

Table 1

Reproductive Events by Type and Year to Females Under Age 18 in the State of Hawaii for Federal FY 1975-1978[a]

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| Live Births | 678 | 658 | 674 | 606 |
| Elective Abortions | 368 | 424 | 441 | 468 |
| Standard Fetal Deaths | 67 | 73 | 60 | 44 |
| Total Pregnancies | 1,122 | 1,155 | 1,175 | 1,118 |
| Rate per 1000 females Age 13-17 | 28.3 | 29.1 | 29.3 | 26.6 |

[a] Data compiled by Maternal and Child Health Branch, and Teen Demonstration Project, 1981

Studies conducted in the 1970s indicated that teenage childbearing in Hawaii was associated with a number of serious medical and social consequences. In a statistical analysis of data for 1966-69, Burch (1970)* found that mothers under 20 years of age had the highest infant mortality rate of all age groups in the State of Hawaii. The same report indicated that 46 percent of the illegitimate births in the state were to teens under 20.

In 1970, the teenage birth rate for the 10-19 year age group was 14.2 per thousand compared to the state rate for all age groups of 21.3 according to a study done by Stringfellow (1978).** There had been 45 less live births to teens 10-19 in 1970 than the previous year. This reduction is attributed to the passage of Hawaii's abortion law in 1970. Stringfellow's study of adolescent fertility for 1968-1972 in Hawaii pointed to a number of health consequences of early childbearing. Twenty percent of the births to mothers 10-14 years of age and 11 percent to mothers 15-19 were premature, in comparison to the state rate of 7.8 percent. Hawaiians, Filipinos and Caucasians had the highest proportion of premature infants. In half of the cases in 1970, teens sought prenatal care after their first trimester. Of the mothers 10-19 who gave birth between 1968-1972, 18.3 percent had previously had at least one delivery. The infant death rate for mothers under 20 years of age was 24 per thousand live births compared to the state rate of 17 for all age groups during the same time period. Eighty percent of these infant deaths occurred to premature infants. Stringfellow also found that 65 percent of divorces to women in the 15-19 age group were married for one year or less at the time of the divorce. Between 1968-1972 Honolulu County was recorded to have had the highest birth rate (139), fetal death ratio (359) and pregnancy rate (37.9) per thousand women aged 10-19 years of age.

---

*Burch, Thomas, "Statistical Report, Department of Health, State of Hawaii, 1970," 1972, pp. 46-49.

**Stringfellow, Lorraine, Margaret Wooten, et al., "Adolescent Fertility in Hawaii." Hawaii Medical Journal 37 (4):105-113, 1978.

Stringfellow pointed out the need for pregnancy-related services emphasizing prenatal care and early parenting support services in the Windward Oahu District. Table 2 shows the distinctive rates for each high school in the district and indicates higher need at Kahuku than Castle or Kailua High Schools.

Table 2

Windward Oahu Women 10-19 Years By Live Birth, Fetal Deaths, Pregnancy Rate, Prematurity and Infant Mortality 1968-1972[a]

| High School Complex | Live Births (no.) | Fetal Deaths (no.) | Frequency Rate Per 1000 Females 10-19 | Prematurity | Infant Mortality Per 1000 Live Births |
|---|---|---|---|---|---|
| Kahuku | 218 | 40 | 41.1 | 12.8 | 50.4 |
| Castle | 513 | 129 | 31.2 | 10.3 | 11.7 |
| Kailua | 709 | 214 | 30.4 | 7.5 | 12.7 |
| Total or Average | 1,440 | 383 | 34.2 | 10.2 | 24.9 |

[a] Table from Stringfellow, 1978, p. 112.

Several recommendations were suggested by Stringfellow that relate to objectives of the demonstration project.

1. Family Life Education efforts in those schools demonstrating greatest need should be increased.
2. Inter-disciplinary and inter-agency cooperation are essential.
3. Prenatal care, including health education and inter-disciplinary health care should be made more readily available and acceptable to young mothers.
4. Continuing education opportunities should be increased for professionals working with teens 10-19 years of age.

In a study of pregnancy planning, Steinhoff et al. (1975)* found that in 1970, 85 percent of pregnancies to teens under 20 in the study were unintended. In one year, abortion reduced the rate of births resulting from unplanned pregnancy to unmarried teens by 36 percent.

Burch (1974)** compiled data on pregnancy and divorce in 15-18 year-old brides in Hawaii. He writes:

> At least 54.4% of the 1970 brides age 15-18 married to civilians delivered a live baby within seven months after marriage. An additional .9% had an abortion within two months after marriage. Hence 55.3% of the brides were pregnant at the time they married. (p. 2)

Burch estimated that approximately 5.5 percent of the unmarried girls age 15-18 became pregnant in 1970. At least 82 percent of the live births and 89 percent of abortions to 15-18 year-old girls were conceived out of wedlock. It should be noted, however, that these figures do not take the higher proportions of premature births into consideration.

The data indicated that girls who did not use contraception prior to marriage did not use any after marriage. Two-thirds of the brides 25-28 who had repeats within 24 months since the last pregnancy outcome, had had their first baby within the first seven months of marriage. Japanese had the highest percentage of brides (76%) giving birth in the seventh month of marriage with 61 percent of the Hawaiians, 53 percent of the Filipinos and 39 percent of the Caucasians.

---

*Steinhoff, Patricia, "Pregnancy Planning in Hawaii," East-West Center Population Institute Report no. 64:138-142, 1975.

**Burch, Thomas, "Pregnancy and Divorce in 15 to 18 Year Old Brides in Hawaii," R&S Report, Hawaii State Department of Health, May 1974.

By the end of 1972, 7.2 percent of the brides had divorced. The rate was higher (8.7%) for brides who did not have a live birth or abortion.

For 1974 and 1976, McLaren reported the pregnancy rate per 100 15-19 year-olds was 9.1 and 9.0, respectively.* This was just below the U.S. rate of 10.0. Hawaii had 5 percent higher proportions of abortions, 10 percent higher birth rates and 58 percent lower rates of standard fetal deaths than the national figures for 1974. Fifty-seven percent of the conceptions were to unmarried women at the time of the pregnancy outcome. In 1976, Filipinos had the highest conception rate of 152.1 per thousand; 52 percent were illegitimate.

One area about which little information was known in the State of Hawaii was repeat pregnancy to teens. Repeat pregnancies can be potentially much more damaging to the teen and her infant than the first pregnancy because of short interval generally found between pregnancies. While the young body is stressed with the first pregnancy because of the competition it faces with its own growing needs and that of the fetus, it rarely has the chance to add needed strength before a second or third pregnancy makes its demands on the body. Higher prematurity rates and birth defects demonstrate health consequences of an early repeat pregnancy.

In a survey conducted by Wooten and Stringfellow during 1976, among 57 newly postpartum teen respondents, 45 percent wanted their next child within two years, 7 percent wanted their next within six months.** In the same survey the teens were asked what type of birth control, if any, they planned to use. Ninety-one teens responsed to this question. Table 3 shows the distribution of responses.

These data indicate that at least 15 percent and as much as 46 percent would be at risk of an early repeat pregnancy.

---

*McLaren, Kazue K., "Teenage Conception in Hawaii 1976," R&S Report, no. 25, Hawaii State Department of Health, 1978.

**Wooten, Margaret and Lorraine Stringfellow, "Young Parentood in Hawaii," Hawaii Medical Journal 37 (1):44-52, February 1978.

### Table 3

### Type of Birth Control Planned by Teen Parents[a]

| | Number | Percentage |
|---|---|---|
| Didn't Plan to Use Any | 13 | 14% |
| Not Yet Selected | 28 | 31% |
| Birth Control Pill | 28 | 31% |
| I.U.D. | 17 | 19% |
| Condom | 3 | 3% |
| Diaphram | 1 | 1% |
| Withdrawal | 1 | 1% |
| Total Responses | 91 | 100% |

[a] Compiled from findings in Wooten and Stringfellow (1978)

Steinhoff et al.'s (1979)* study of hospital abortion in Hawaii provides statistics on repeat pregnancies to teens during the 1979s. The study showed that teens under 18 years who had a hospital abortion had a 13.1 percent repeat rate within one year, 21.4 percent repeat rate within two years and 26.9 percent repeat rate within three years. (See Table 4.)

### Table 4

### Repeat Rate of Hospital Abortion Patients State of Hawaii[a]

| | |
|---|---|
| Repeat within one year | 13% |
| Repeat within two years | 21.4% |
| Repeat within three years | 26.9% |

[a] Compiled from Steinhoff (1979)

---

*Steinhoff, Patricia, et al., "Women Who Obtain Repeat Abortion," East-West Center Population Institute #103, 1979.

## Teen Pregnancy Services in Perspective

Over the years in Hawaii, services and laws relating to adolescent pregnancy have been modified as economic demands and societal values concerning early and/or premarital childbearing have changed.

At the beginning of the twentieth century, pregnancy to unmarried women of any age was considered scandalous. In 1903, the first home in Honolulu for unwed mothers was opened by the Salvation Army. This residential setting allowed unmarried women to finish their pregnancies in seclusion and subsequently assisted in the adoption process, which was at that time the most commonly chosen alternative. In the seventies, as less girls selected adoption, the program shifted to a psychiatric residential treatment facility for high risk young mothers and their infants. By the 1980s, the need for residential homes had decreased dramatically as premarital pregnancy became more acceptable in the community. During the summer of 1982, Salvation Army Booth Services converted to a psychiatric day treatment facility for mothers and their infants.

The need for special services for children of Hawaiian descent was recognized by Queen Lili'uokalani, Hawaii's last ruling sovereign. In 1917 a deed of trust was instituted by Queen Lili'uokalani in her will to serve orphaned and half-orphaned* minor children and youth of Hawaiian and part-Hawaiian ancestry. The Queen Lili'uokalani Children Center, an outgrowth of the Queen's trust, became an independent agency in 1946. The Center provides counseling and adoption services to Hawaiian orphaned and half-orphaned minors who are pregnant. Children of single teen parents and those who are without legal paternity claim are also served. Presently, the Center is conducting a needs assessment of single teen parents of Hawaiian heritage in conjunction with Kamehameha Schools' 0-2 Program.

In 1959, Booth Memorial School was established as a joint project between the Salvation Army Booth Home and the Department of Education. This school for pregnant students was initiated with the hope of preventing pregnant schoolgirls residing at the home from dropping out of school. In 1975 when the number of girls became too small to warrant a school at Booth Memorial Home, the program became a Department of Education Special Service Alternative School for pregnant students. Today the program is located at the School for the Deaf and Blind and has one full-time and four part-time teachers.

---

*Half-orphaned is defined as a child who has one deceased parent or whose father/mother had made no legal claim of paternity/maternity.

In Windward Oahu prior to 1967, pregnant high school students could continue their education solely through individual tutoring. In 1967, "due to the rapidly increasing number of pregnant school-age girls under the auspices of Home Instruction,"* the Windward Oahu School District instituted a special class for pregnant students. Students were given five hours of instruction per week as required in the Home Instruction Guidelines. By 1970, a full-time facility with full-time staff was recommended by the District Office of Special Services. The State Legislature appropriated funds for the program and classroom space at the Kaneohe Salvation Army was rented. Two full-time teachers were hired. Enrollment was open to any student in grades 9-12 who had a medically confirmed pregnancy. In 1970-71, 64 students were enrolled.

In 1963, a subcommittee of the White House Conference on Children and Youth recommended to the State Commission that a detailed study, particularly concerning the protection of the child and of the younger mother, was needed in the community to determine the gaps in medical and social services and the unmet needs of the unwed mother. The Commission on Children and Youth prepared the "Study of Unwed Mothers in Hawaii (1964-65)" which was forwarded to Governor Burns and the Fourth Legislature. In 1968 the Committee on Unwed Mothers was organized under the auspices of the Health and Community Services Council of Hawaii. The purpose of this group, later called Young Parents Committee, was to conduct research within the local community, identify program priorities and gaps in services and advise the Legislature on policies regarding adolescent pregnancy. Many of the studies noted in the previous section of this report are the result of this committee. In 1977, the committee sponsored a two-day Adolescent Parenthood Workshop which resulted in three publications on adolescent pregnancy and parenting. This committee was dissolved in 1978.

In 1968, the same year the committee was initiated, the State Legislature enacted a law enabling minors over the age of 14 to consent to care relating to pregnancy and venereal disease.* Minors could not, however, consent to surgery or abortion. The law required that parents be informed of positive pregnancy test results by the practicing physician.

---

*Kaw, Jennie and Dorothy Nakea, "Continuing Education Class,"Windward Oahu District, Department of Education, State of Hawaii, 1971-72.

The 1970s brought about major legislative policy changes relating to adolescent pregnancy prevention and care in the State of Hawaii. In 1970, Hawaii State was the first in the nation to repeal the anti-abortion law. To research the impact of abortion, the Hawaii Pregnancy, Birth Control and Abortion Study, a long-term project studying hospital abortions, pregnancy decision-making, attitudes and birth control, was initiated in that same year. It was from this study that we were able to estimate the percentage of unintended and repeat pregnancies to minors prior to the project.

In 1973, the Pearson Foundation, a private non-profit organization opposed to abortion, opened the Mary Jane Center, a residential facility for pregnant women. However, because the center was run by non-professional volunteers, the types of services available were limited. Bishop John Scanlan of Hawaii's Catholic Diocese asked the Sisters of Good Shepherd in 1976 to administer the residential facility. With the addition of professional staff and funds from the Catholic Church, the program expanded its educational and counseling services. Today it remains as the only home for pregnant young women on Oahu.

Hawaii's Department of Education revised its policies concerning pregnant students in 1973. For the first time pregnant students were permitted to stay in school if they so desired. The following is the 1973 DOE policy relating to pregnant students still in force today.

Rule 23 of the Department of Education states:

> 23.1 Relating to Pregnant Students — The Department strongly encourages pregnant students to continue with their education. Any pregnant student shall be allowed to stay in their school if she so desires until a physician indicates she should not.
>
> 23.2 Diagnosis and Referral—In case of suspected pregnancy, diagnosis is the responsibility of a qualified physician. The school shall make every effort to provide appropriate information to the girl as to the resources for placing and care. The public health nurse is one of these resources. The pregnant girl may

---

*Fertel, Jeanne and Roy Smith, "Hawaii Physicians' Attitudes and Practices Regarding Reproductive Health Services for Minors," Hawaii Medical Journal 37 (2):41-42.

> be referred to an appropriate social agency. The status of a putative (supposed) student father is a legal consideration which can be determined by court action only.
>
> 23.3 Educational Alternatives — The Department shall assist the pregnant girl in modifying her class schedule if the pregnant girl decides that she does wish to remain in her own school, either during or after pregnancy. The Department shall assist her in transferring to another school of her choice including but not limited to adult education classes, or Booth Memorial School or any school.
>
> 23.4 Excused Absence — When in the opinion of her physician her condition warrants it, the expectant mother may be excused from school. (DOE Policy Guidelines, Rule 23, 1973)

The Hawaii State House of Representatives adopted a resolution at the 1975 Session for the Legislative Reference Bureau to conduct a study on the Rights of Minors.* Specifically requested were data on rights to health services including provision of gynecology, contraceptive, and abortifacient services. A survey was sent out to 485 physicians of which 246 responded. It was found that 82 percent of the Honolulu OB-GYNs did not require parental consent when prescribing contraception. Although the law specifically required parental notification, 81 percent did not inform the patient's parents of a positive pregnancy test result.

In 1976, a study of service utilization pattern by young expectant parents on Oahu was conducted by the Young Mother's Committee of the Health and Community Service Council.** One hundred teenage mothers between 15 and 20 were interviewed while in the postpartum ward. Forty-nine of the mothers were single and 44 were married at the time of the birth. All 37 minors were single. The four most commonly agreed-upon problems mentioned by the young parents were financies, education, housing, and employment.

The study indicated that schools, physicians and DSSH were the major service contacts for the young mothers. For pregnancy test, 67 of the teens went to private physicians, only 25 went to other various agencies. Only one-fourth went to prenatal classes. Reasons given for not attending classes included transportation problems, cost, lack of interest and lack of awareness of class.

---

*Fertel and Smith, 1978.

**Wooten and Stringfellow, 1978.

Prior to the pregnancy, 26 had contact with an agency for social services. During pregnancy 60 teens contacted at least one agency and 14 contacted two.

These studies indicated gaps in services for pregnant teens and made policy recommendations relating to service utilization.

In 1977, the Attorney General ruled that "generally a pregnant female minor has the right to consent to an abortion without parental consent during the first 12 weeks of pregnancy."

After the U.S. Supreme Court ruled that minors have a right to access to contraception, the 1979 State Legislature approved a law giving minors consent to contraceptive services and repealing the clause which required physicians to notify parents of positive pregnancy tests.

As a result of new national priorities, local research findings, and state policy changes, a number of programs and demonstration projects relating to adolescent pregnancy began after 1978.

In 1979 a number of new programs began. The YWCA started its Young Mothers Program which provided opportunities for young mothers to gather socially, as well as providing outreach services at a number of high schools. The Reproductive Information and Counseling Education (RICE) Program (an in-school demonstration project to reduce teenage pregnancy), funded federally through Hawaii Planned Parenthood was initiated. In the same year, the National March of Dimes public health education section declared that teen pregnancy would be a major focus for the eighties. Nationally, the MOD produced a film and curriculum materials for school and adolescent pregnancy programs. The local MOD office provided training, conducted outreach and funded special projects to reduce the consequences of teen pregnancy. It was also in 1979 that the Hawaii Demonstration Project to Avert Unintended Teenage Pregnancy was implemented. For Hawaii, the late 1970s marked a milestone in programs directed at the prevention and care of pregnant teenagers.

The information included in this report represents findings of one particular demonstration project, however, the historical antecedents of the project provide an important perspective for analyzing project impact.

The successes and failures of this project must be considered in light of previous as well as contemporary attempts at pregnancy reduction and available research data.

## The Hawaiian Islands Flavor the Problem

### 1. Socio-Economic Setting

In Hawaii, the problem of teenage pregnancy and its solutions are flavored by unique geographic, demographic and cultural factors not found elsewhere in the United States. The Hawaiian archipelago is made up of eight islands, each having its own distinctive character. In going from island to island, one finds a mixture of diverse lifestyles from rural plantation living on the islands of Hawaii, Kauai, Maui and Lanai to the fast-paced urban cosmopolitan business world of Honolulu, Oahu. The island character of Hawaii, its immigrant history, and the relatively small size of our community impact on the professional community serving teens as well as the day-to-day lifestyle of Hawaii's teens.

Hawaii's population is comparatively small and demographically young; the total population is 964,691 and median age is 29.1. According to the 1980 census, 8.5 percent of the total population are aged 13-17 (81,816 persons). Forty-nine percent of those or 4 percent of the population are females 13-17. Pregnancies to girls under 18 represented 4.5 percent of all pregnancies statewide in 1980.

Everyone in Hawaii is a member of an ethnic minority as no single racial group constitutes as much as one-third of the population. Table 5 indicates the ethnic breakdown for the state.

Table 5

Percent of State Population by Ethnicity, Hawaii, 1980[a]

| Ethnic Group | Percent |
|---|---|
| Caucasian | 26.3 |
| Japanese | 23.5 |
| Part-Hawaiian[b] | 17.9 |
| Filipino | 11.2 |
| Mixed non-Hawaiian | 9.4 |
| Chinese | 5.1 |
| Korean | 1.3 |
| Samoan | 1.2 |
| Pure Hawaiian | 1.0 |

[a] Data from the State of Hawaii Data Book 1981, DPED.

[b] Part-Hawaiian refers to a person who is at least 1/16th Hawaiian but not pure Hawaiian.

Immigration plays a major role in the composition of Hawaii's population. Of the total population, 13 percent or 122,243 persons were foreign born. In 1979, immigrant arrivals totalled 8,944, most were from the Philippines and Korea. In Hawaii, linguistic and cultural considerations are essential in planning and implementing adolescent pregnancy prevention projects in Hawaii.

Religion plays an important role in Hawaii. There is a wide variety of religious affiliations representing both Eastern and Western belief systems. Religious diversity is particularly visible on the Pali Highway on Oahu where one finds rows of temples, shrines and churches. Table 6 provides an estimation of the religious composition in Hawaii. The data are based on a sample of 1,335 persons on six islands, surveyed by the Hawaii Public Communications Council of the Church of Jesus Christ of Latter-Day Saints.

Table 6

Estimated Percentage of Population by Religion, Hawaii, 1979

| Religious Affiliation | Percentage |
|---|---|
| Atheist, agnostic | 4.5 |
| Buddhist | 11.8 |
| Catholic | 31.1 |
| Protestant | 34.2 |
| Mormon | 2.5 |
| Jewish | 0.3 |
| Other | 15.6 |

Hawaii's economic conditions are as diverse as the people's lifestyles. Hawaii's economy is mainly supported by three vastly different industries: tourism, the military, and agriculture (sugar and pineapple). Data for 1980 indicate that 13.5 percent of the total population is considered rural. Of Hawaii's total island area 1,350,000 acres (33%) is used in agriculture. High population densities are found in urban areas. In the City and County of Honolulu, Oahu, the population density is 516 persons per square kilometer, whereas on the neighboring islands the average density is only 14 persons per square kilometer. An estimated 22,500 of Hawaii's workers were employed in plantation and farms in the sugar and pineapple processing industry during 1980.

Non-agricultural jobs total 396,600 in manufacturing, construction, trade, service, government, etc.

The nation's economic downturn has strongly affected the state's biggest industry—tourism. The number of visitors to Hawaii dropped by more than 1 percent in 1980 and sagged by 1.7 percent in the first seven months of 1981. The visitor industry slowdown was felt most severely by neighbor islands. Military spending in Hawaii was up 7.8 percent over 1979, but there was a loss in real terms after discounting inflation. Hawaii's sugar industry reported major revenue losses in 1981. Decreasing sugar prices and work competition compounded to lower the value of production. The same problems are shared by Hawaii's pineapple industry. In 1982, several sugar processing plants closed; there is now serious concern that the sugar industry will die.

Unemployment rates are increasing. In 1980, the state rate reached 5 percent. Hawaii's youth employment rate for 16-19 year-olds in 1975 was 26.5 percent. This figure surpassed the 1981 national unemployment rate for youth of 19 percent.

The median annual income of families based on 1975 data for 1981 was $18,228 on Oahu, $15,923 on neighboring islands, and $17,770 statewide. Income eligibility criteria to obtain welfare for a family of four is $12,080 in Hawaii. In 1975, the percent of household by county considered to be poverty levels were 10.3 percent on Oahu, 19.4 percent for Hawaii, 12 percent on Maui and 12.1 percent on Kauai. Although the per capita personal income in 1980 was $9,787, 3 percent over the national average, Hawaii's cost of living is 20 percent higher than the national average.

In 1980, the major welfare programs served 7.5 percent of the resident population of the state. Two-thirds of all public assistant payments and one-half of all recipient cases were accounted for by Aid to Families with Dependent Children. In 1981, 1,158 female parents under age 20 received welfare through AFDC, general assistance and unemployed parents program from DSSH in addition to an undetermined amount of medicaid, housing and foodstamps assistance. In welfare benefits alone, teen parents and their dependents cost the state $451,620 per month. About 6.1 percent of all welfare cases in the state during 1981 were recent immigrants to Hawaii.

## 2. Closed Communities

Hawaii State is divided into a number of distinct districts, most of which can be defined as "closed" communities. Because of the limited size of land and population (with the exception of Honolulu), communities are quite close knit. Several agency-related persons who participated in the project on Kauai were asked to describe what is a "closed" community in Hawaii. The following is a summary of their remarks.

1. A "closed" community is rural, insulated, and uncomfortable about new ideas, new people, and it takes time for adjustments and assimulation. It is closed politically and suspicious of any drastic changes. It is a community with little growth and little mobility. Where newcomers reside in new communities not change old ones.
2. A "closed" community generally has a low supply of active volunteers to organize community projects, and where many do not have the attitudes and/or rewards for supporting participation. Local families are tight-knit and demand high interaction so that time available to outside activities is limited. It is very difficult to reach into extended families and collect volunteers which contributes to the pattern of the same people getting involved over and over again in community meetings.
3. In a "closed" community, community institutions are interconnected through strong family relationships; problems are handled within the family and opportunities are made available to assist "their kind" first.
4. "Closed" communities in Hawaii exhibit strong Asian influence. This influence maintains a less flamboyant personal style, strong family orientation, strong traditions and social pressures to conform and maintains a high degree of privacy which inhibits discussion of sexuality issues publicly.
5. A "closed" community would generally exhibit a high degree of interaction between community agency providers and the general public.

Hawaii's "closed" community structure could both support and hinder project efforts. On the one hand, this structure encouraged and simplified interagency networking; on the other hand, it is more difficult to generate public participation and alter attitudes.

The concern of the project focused on community attitudes regarding adolescent sexuality and early and/or premarital pregnancy. Sexuality is a sensitive issue in any community, especially one which is multi-cultural, with a strong sense of tradition. Traditional communities wish to remain intact and in control by handing down values and practices from parents to children. Such a community could to some extent view a project relating to adolescent pregnancy as a potential threat.

Because of the wide variety of cultural and socio-economic groups in Hawaii, there are also divergent practices and values concerning family, sexuality, and early pregnancy. Cultural beliefs, religious values, as well as socio-economic factors influence the amount of knowledge regarding sexuality available to teens, the rates of teen pregnancy, its acceptability within the family, and pregnancy decision-making.

## Contemporary Issues Regarding Adolescent Pregnancy in Hawaii

### 1. Current Trends in Adolescent Pregnancies Statewide

In 1977, a Knowledge, Attitudes and Practice (KAP) Survey was conducted on Oahu and the neighboring islands.* There were 1,586 respondents 13-17 years of age representing several areas and schools. Of the teens who responded to the survey, 31.5 percent stated they had experienced sexual intercourse. Table 7 shows the proportions experiencing intercourse at each age.

Table 7

KAP Survey Responses on Age at First Intercourse

| Age | Percent | Cum. Percent |
|---|---|---|
| 13 | 18.0% | 18.0% |
| 14 | 20.5% | 38.5% |
| 15 | 24.8% | 63.3% |
| 16 | 18.9% | 82.2% |
| 17 | 4.9% | 87.1% |

---

*Hancock and Kaw, "Study of the Knowledge, Attitude and Practice Among Teenagers in Hawaii Related to Reproduction, Family Planning and Sexuality," Hawaii Planned Parenthood, 1979.

According to these data, it is estimated that 12,628 females 13-17 have had sexual intercourse. These data indicate that 63 percent of the teens who become sexually active do so at age 15 and younger. These figures are similar for rural and urban settings alike. Forty-nine percent of the teens reporting to have experienced sexual intercourse did not use birth control when they had sex. The majority of teens (41.7%) stated they received most of their information on sex from school. Only 10.5 percent of the teens responded that their family was their major source of sex education. Half of the teens said that they would not get married if they were going to be a parent while they were still in high school.

Confidential and low-cost family planning services for minors 14 and older are available statewide through a system of twenty publicly subsidized clinics in addition to the many physicians in the community. In 1981, family planning clinics contracted by the State Family Planning Services Section served 131 teens under 14 and 2,035 teens 15-17 years of age. It is estimated that 17 percent of the teens at risk of pregnancy visited a family planning clinic for counseling, health education and contraceptive services. In all, teens under 18 made up 14 percent of all unduplicated contacts for family planning services. Table 8 indicates the ethnic breakdown for teens attending family planning clinics in 1981.

Table 8

Percent of Teenage Family Planning Clients
by Ethnicity, 1981, Hawaii State
Publicly Subsidized Clinics

| Ethnic Group[a] | < 15 | 15-17 |
|---|---|---|
| Japanese | 13% | 13% |
| Hawaiian-part-Hawaiian | 28% | 20% |
| Filipino | 16% | 16% |
| Caucasian | 35% | 40% |

[a] Any ethnic group not mentioned represented less than 5 percent of the teens served.

Caucasians were over-represented by 9 percent and Filipinos by 11 percent. The Japanese teen clients were under-represented by 10 percent. Teen clients are characterized by low monthly income. Eighty-one percent and 76 percent of the clients under age 15 and in the 15-17 age group respectively had monthly incomes less than $546 but greater than none. One hundred percent of the under 15-year-olds and 92 percent of the 15-17 year-old clients were unmarried.

Seventy-five percent of teens attending publicly subsidized family planning clinics chose oral contraceptives in 1981. Approximately 15 percent of the teens served leave without any method of birth control. Table 9 shows the type of contraceptive accepted by teen clients.

Table 9

Type of Contraceptive Received at Family Planning Clinics
by Age, 1981, Hawaii
Publicly Subsidized Clinics Only

| Method | < 15 | 15-17 |
|---|---|---|
| B.C.P. | 73% | 74% |
| Foam and condom | 8% | 5% |
| None | 13% | 15% |

Each year in Hawaii approximately 1,200 girls under 18 become pregnant, of which about half give birth and the other half have abortions. Pregnancies among teenagers, especially those among younger teens, almost always represent and/or result in serious problems. They may reflect confused or frustrated personal or interpersonal relationships. They often lead to complicated medical and psycho-social courses in which the repercussions continue to be felt for decades. Teen pregnancies represent dilemmas of conflicting social norms and the confusion of changing life styles; they tragically highlight unresolved questions of public/private, male/female, parent/child responsibilities and rights.

Teenagers, though becoming capable of reproduction, are often inadequately prepared to deal with the decision-making and values involved, as well as the dynamic and realities of the maturation process. Data reveal that teens have not yet been able to exercise the type of control over their fertility which has become common for most adults in America, and particularly in Hawaii. Only 13 percent of a sample of pregnant teenagers in Hawaii reported having planned their pregnancy, the lowest rate of any age group in the state.*

Between 1976 and 1981, teens under 18 in Hawaii experienced 6,957 pregnancies, of which 3,668 (53%) infants were born, 334 (5%) standard fetal deaths occurred, and 2,955 (42%) elective abortions resulted. Table 10 includes the numbers of reproductive events from 1976 through 1981 to illustrate adolescent fertility trends statewide.

Table 10

Reproductive Events by Type and Year to Females Under Age 18 in the State of Hawaii 1976-1981[a]

| | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|---|
| Live Births | 658 | 674 | 606 | 596 | 565 | 569 |
| | 57% | 57% | 54% | 54% | 49% | 46% |
| Elective Abortions | 424 | 441 | 468 | 461 | 547 | 614 |
| | 37% | 38% | 42% | 41% | 47% | 50% |
| Standard Fetal Deaths | 73 | 60 | 44 | 58 | 49 | 50 |
| | 6% | 5% | 4% | 5% | 4% | 4% |
| Total Preg. | 1155 | 1175 | 1118 | 1115 | 1161 | 1233 |
| | 100% | 100% | 100% | 100% | 100% | |
| Rate per 1,000 females Age 13-17 | 29.1 | 29.3 | 22.6 | 27.8 | 29.6 | 31.4 |

[a]Compiled from Department of Health, MCH Branch Data.

As the data reveal, in Hawaii teens 13-17 years of age are choosing to terminate pregnancies more often, and fewer teen pregnancies are resulting in births. During 1980, elective abortions were chosen in 50 percent of all teen pregnancies compared to only 37 percent in 1976. The rate of teen births are on the decline with 57 percent of the pregnancies resulting in a birth in 1976 compared to only 46 percent in 1981. The incidence of standard fetal deaths among teens has been decreasing; in 1975, 6 percent of the pregnancies ended in a fetal death, by 1981, the percentage had dropped to 4 percent. Overall, however, the rate of pregnancy to minors is increasing. Although the actual numbers of teenage pregnancies are increasing, teens are contributing less in proportion to the total pregnancies occurring in Hawaii as identified in Table 11.

---

*Hale, Ralph, et al., "Family Planning Study: Unplanned/Planned Pregnancy Study," University of Hawaii John Burns School of Medicine, 1976.

Table 11

Number of Pregnancies to Females 13-17
Fed. F.Y. 1976-1981[a]

| Year | % of all Pregnancies | Frequency | Cumulative Frequency |
|---|---|---|---|
| 1976 | 5.2% | 1155 | 1155 |
| 1977 | 5.1% | 1175 | 2330 |
| 1978 | 4.7% | 1118 | 3448 |
| 1979 | 4.5% | 1115 | 4563 |
| 1980 | 4.5% | 1161 | 5724 |
| 1981 | 4.7% | 1233 | 6957 |

[a] Number of Events compiled from Department of Health, MCHB, Data System Statistics.

The increase in teen pregnancies, unlike national statistical findings, is attributed to the 15-17 year age group and not to the < 15 year age group. In 1980, teens 15-17 had 1,105 pregnancies compared to 1,177 in 1981. The number of pregnancies to teens under 15 were 56 for both years. Figure 1 shows the 6 year trend in age specific fertility rates for three age groups: (1) less than 15, (2) 15-17, and (3) 14-33 (total fertile age group). While the rates remain stable for the girls under 15, both the 15-17 and 15-44 age groups show an upward trend in fertility.

In 1980, the low birth weight rate for infants of teen mothers was 30 percent higher than statewide rates for all age groups. Low birth weight is associated with a higher incidence of premature deliveries found among teens, but also occurs in fullterm deliveries as a result of inadequate nutrition and late prenatal

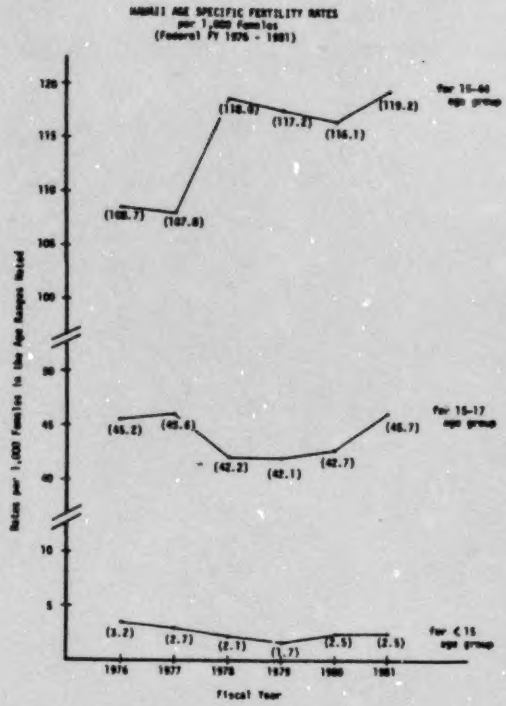


Figure 1

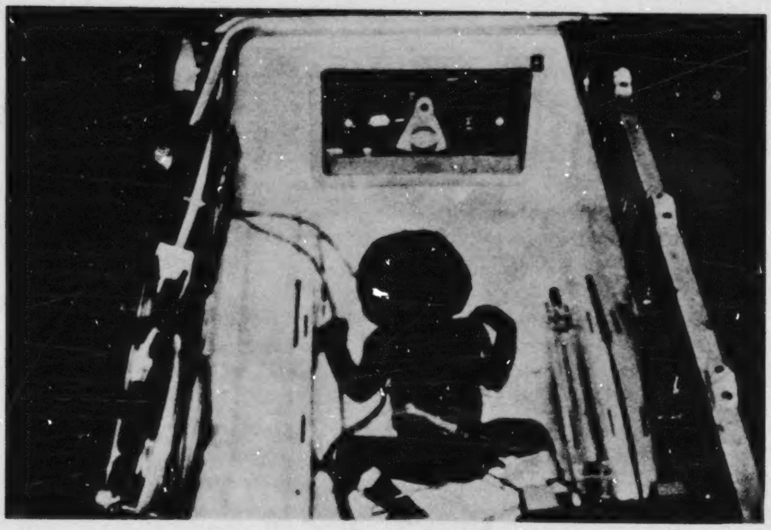
Hawaii Age Specific Fertility Rates

care. In 1981, 9 percent of the infants admitted to Kapiolani-Children's Medical Center's Neonatal Intensive Care Unit were born to adolescent mothers, yet teens delivered only 4 percent of the infants in Hawaii.

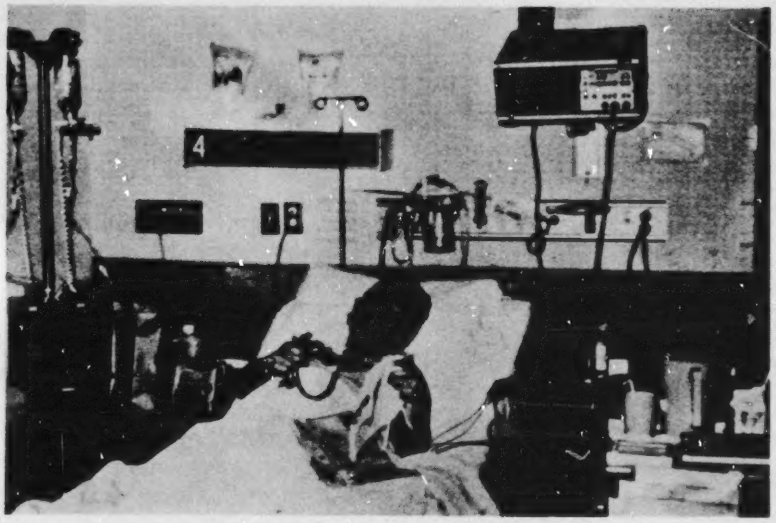
Other medical risks associated with teenage pregnancy include toxemia, anemia, and disproportionate pelvic structure which leads to higher rates of caesarean deliveries, and need for maternal intensive care services.

Research in Hawaii has found that the health, social and economic consequences of early childbearing are almost all adverse. Nonetheless, each year approximately 600 girls under 18 are becoming teen parents.

Figure 2 shows that one-half of the teens 15-17 and 77 percent of the teens under 15 who gave birth in Hawaii received prenatal care after the first trimester. Rates of getting no prenatal care for teens are twice to three times as high as the statewide rates for all ages (see Figure 3).



Infants born to teens have a 30 percent higher rate of low birth weight



There are a number of medical risks associated with teenage pregnancy

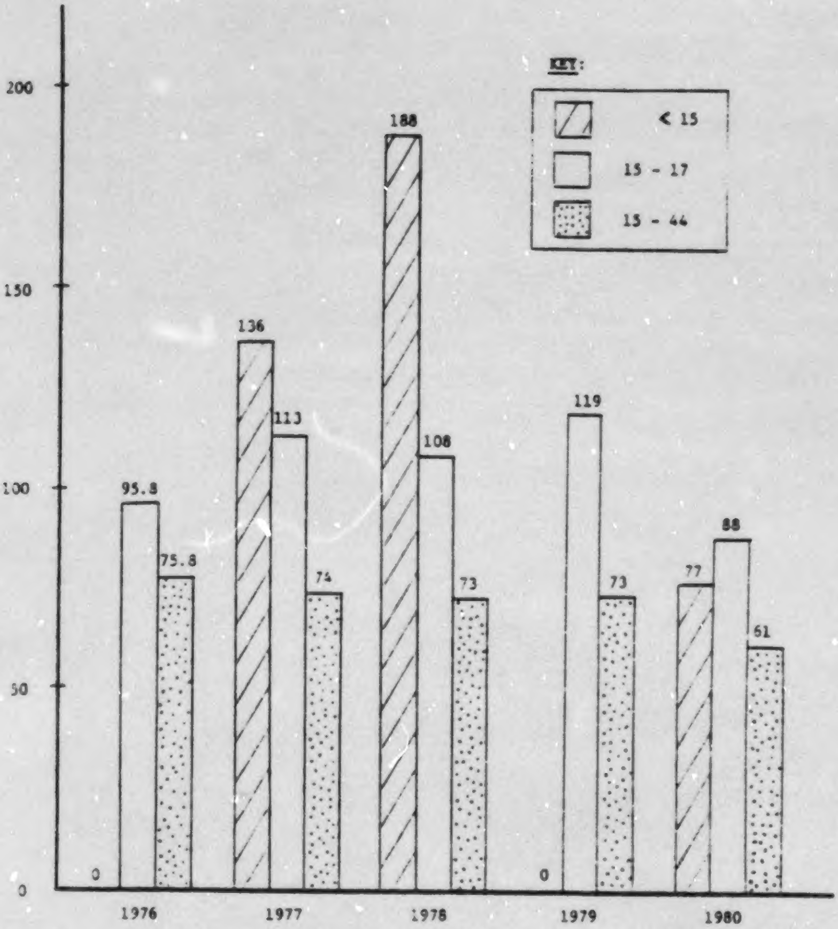


Figure 2

Births to Mothers Getting Care after First Trimester
Fed F.Y. 1976-1980 by Age

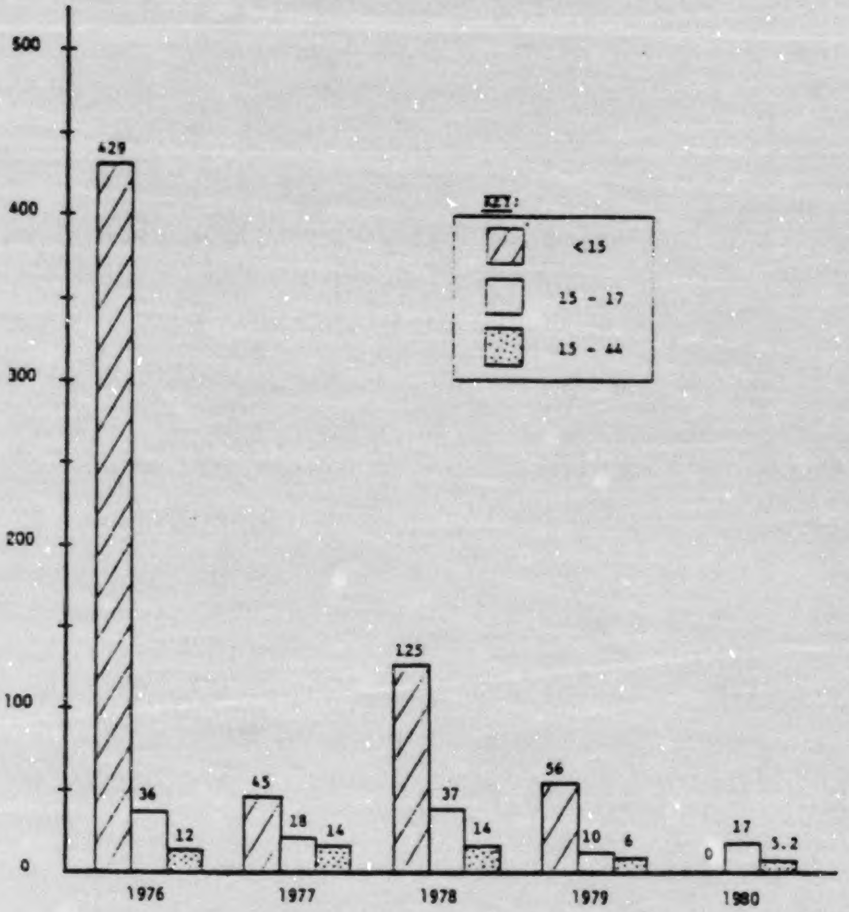


Figure 3

Births to Mothers Getting No Prenatal Care by Age of Mother per 1,000 Live Births 1976-1980, Hawaii

Although no statewide statistics on the number of high school dropouts who were pregnant or teen parents are available there is a general consensus that the major reason females drop out of school in Hawaii is related to pregnancy and parenthood. It should be noted that Hawaii is ahead of many other states in that we have special alternative schools for pregnant girls and home tutorials. Teen parents who leave high school however, may be even higher risk for child abuse and neglect. State statistics indicate that a large majority of child abuse and neglect perpetrators have never completed high school.

Recent Department of Education statistics on Windward Oahu do indicate that more pregnant students are interested in continuing their pregnancy and less drop out of school as a result of the pregnancy.

Statistics from the annual class enrollment of the Kaneohe Continuing Education Class for pregnant girls have been compiled and analyzed to estimate the dropout rate for pregnant girls in the Windward area.

Between 1970-71 and 1981-82, 780 pregnant females were interviewed as possible candidates for the Kaneohe Continuing Education Class for pregnant students. Of these, 85 percent or 661 of the students were accepted and enrolled in the class. On the average, 5 percent of the teens interviewed were not interested in attending school. The data, however, indicate a recent downward trend in the proportions not interested in attending school from 9 percent in 1971-71 to only 1 percent in 1980-81 and 1981-82 (see Figure 4).

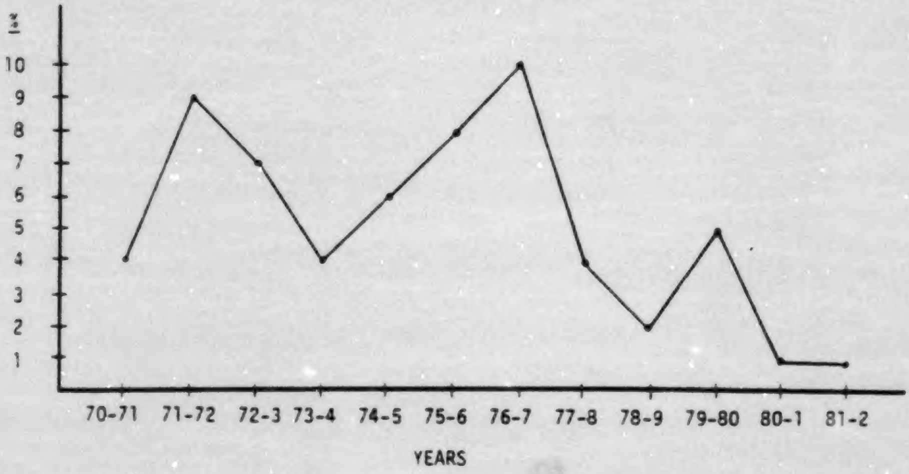
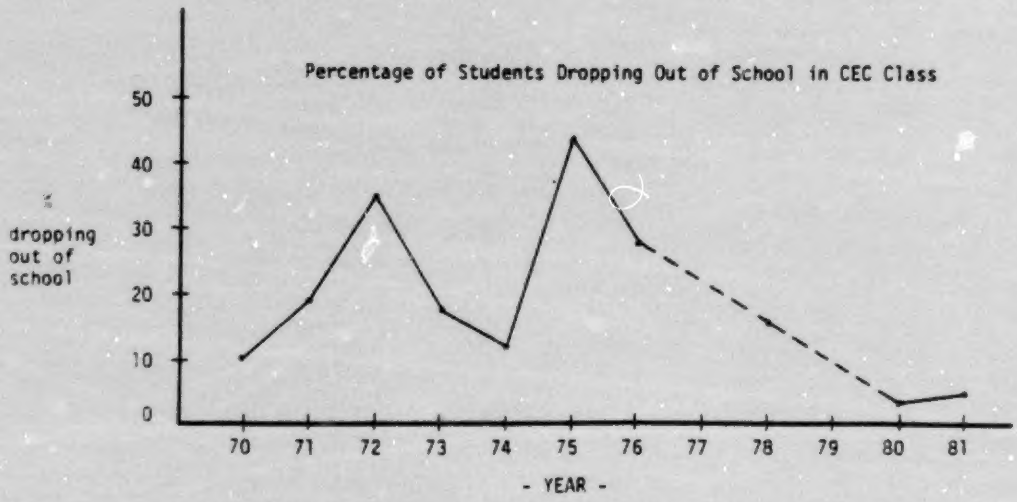


Figure 4

Percent of Pregnant Students Not Interested in Attending School in the Windward School District

Of the 661 students attending the Continuing Education Class in the twelve years, 15.5 percent on the average dropped out or withdrew during the program. Dropout rates ranged from 42 percent in 1975 to only 2 percent in 1980-81 (see Figure 5).



Another 20% on the average each school year returned to school and 17% graduated.

Figure 5

Percentage of Students Dropping Out of School in Continuing Education Class

Teen parenthood is a social concern for the state. Teen parents are often isolated; they are high risk for child abuse; they have poor future orientation; they are frequently unemployed, and are often dependent on public assistance. Ninety-two percent of the teens under age 15 and 79 percent of those 15-17 years of age were not married or had never married at the time they gave birth compared to only 17 percent for the state. For teens aged 15-17 the illegitimacy ratio has increased considerably since 1976 when only 61 percent of the births to teens were illegitimate. The rate is still increasing (see Figure 6). It appears that the community in Hawaii is becoming more accepting of the unmarried mother. This is also reflected in the reduction of residents at Hawaii's two homes for unwed mothers. In 1981, 1,158 female parents under age 20 received welfare benefits through AFDC, general assistance, and unemployed parents program from DSSH in addition to an undetermined amount of medicaid, housing and

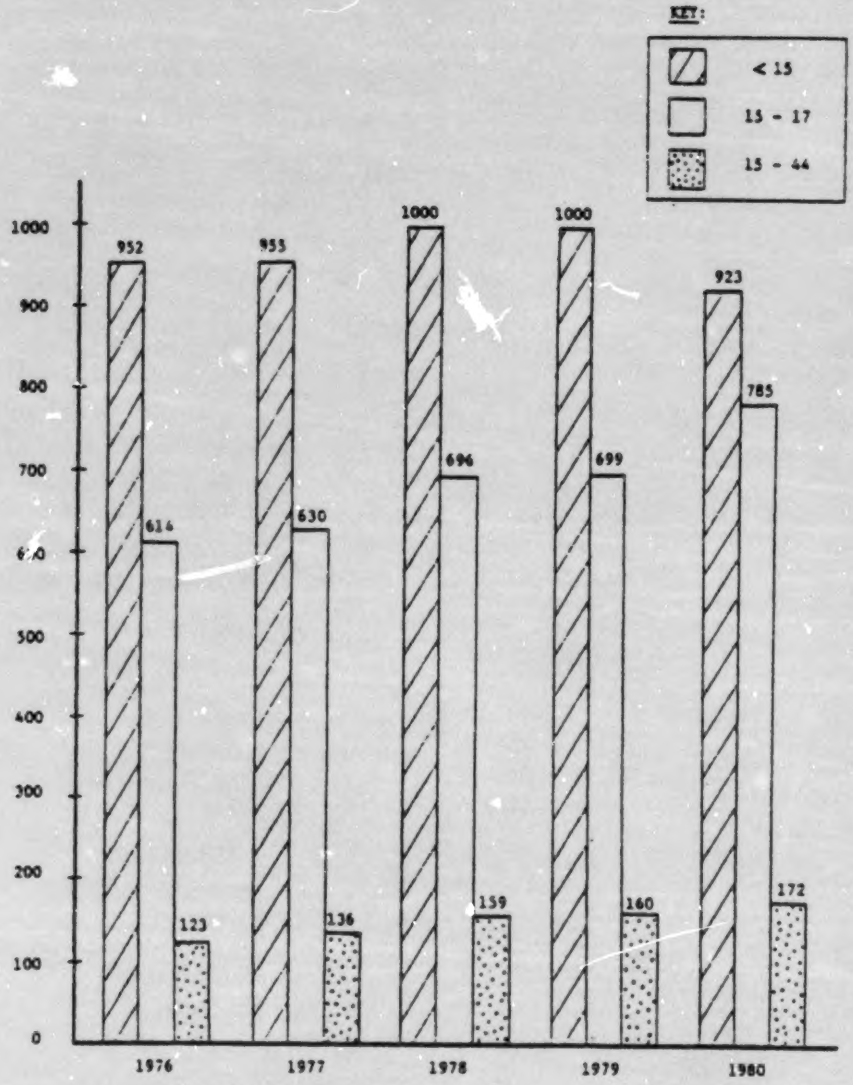


Figure 6

Illegitimacy Ratio by Age of Mother
Per 1,000 Live Births

Fed. FY 1976-1980, Hawaii

foodstamps assistance. In welfare benefits alone, teen parents and their dependents cost the state $451,620 per month. If only 10 percent of these girls required public assistance for the 18 years their child is dependent upon them, it will cost the state 10 million dollars. These figures do not include underaged teen parents obtaining welfare through their own mothers.

Each year the number of teens experiencing a repeat pregnancy is between a third and fourth of all pregnancies to girls under 18. In Table 12 the percent and number of teenage repeat pregnancies in the State of Hawaii during 1979-1981 are presented.

Table 12

Repeat Pregnancies by Year to Teens Under 18
State of Hawaii 1979-1981

| Year | Number | % of Pregnancies to Teens Which were Repeat Pregnancies |
|---|---|---|
| 1979 | 346 | 31% |
| 1980 | 430 | 37% |
| 1981 | 271 | 22% |

From 1980 to 1981, the number of repeat pregnancies was reduced by 47 percent. Conversely, this implies an increase in the number of first-time pregnancies to teens from 731 in 1980 to 962 in 1981, an increase of 24 percent.

## 2. Ethnicity and Teenage Pregnancy

Factors such as ethnicity and geographic area are significantly correlated in the statistical data with teen pregnancy rates and teen pregnancy outcome in Hawaii. According to a report prepared by Gannaway, Beck, Drorbaugh and Burch,* rates show considerable variation among areas and ethnic groups. This study presents 5-year averages of frequency and rates for 1975-1978 on teenage pregnancy, birth and abortion by ethnicity and geographic area. The findings are impressive. The statewide annual average teenage pregnancy rate for 1975-1979 was 26.7, whereas the rate for the Hawaiian/part-Hawaiian group for the same age was 51.0, for Samoans 82.8, Filipinos 45.0, Chinese 10.1, and Japanese 11.3. On the other hand, Chinese had the highest five year average teenage abortion ratio with 1871.0 abortions per 1000 births, along with high ratios for the Japanese (1788), Koreans (1300) and Caucasians (1007.8). Hawaiian/part-Hawaiian and Samoan groups had low averaged abortion ratios for teens 13-17 with 392.9 and 319.1 respectively. For the state, the five year abortion ratio average for teens was 671.2 (see Table 13).

---

*Gannaway, Beck, Drorbaugh and Burch, "A Geographic and Ethnic Group Analysis of Vital Indicators for Maternal and Child Health in Hawaii 1975-1979," Hawaii State Department of Health Research and Statistics Report, July 1981.

Table 13

Five-Year Average of Teenage Fertility Rates by Ethnicity, 1975-1979,[a] Hawaii[b]

| | Teen Pregnancy Rate[c] | Teen Birth Rate[c] | Teen Abortion Ratios[d] |
|---|---|---|---|
| Hawaiian/part-Hawaiian | 51,0 | 34.5 | 392.9 |
| Filipino | 45.0 | 27.8 | 541.9 |
| Samoan | 82.8 | 60.8 | 319.1 |
| Caucasian | 24.6 | 11.5 | 1007.6 |
| Chinese | 10.1 | 3.5 | 1871.0 |
| All Groups | 26.7 | 15.1 | 671.2 |

[a] These rates refer to teens in the 13-17 age group.

[b] Data from Gannaway, et al., 1981.

[c] Rate per 1000 females 13-17.

[d] Ratio per 1000 live births to females 13-17.

More recent statistical data on ethnicity and teenage pregnancy indicate that in 1981 the Hawaiian/part-Hawaiian group had the highest age specific fertility rates for both the < 15 and 15-17 age groups. Figure 7 compares age specific pregnancy rates for six ethnic groups. The Pacific Island groups (Hawaiian, Filipino and Samoan) have high teen pregnancy rates, while the East Asian (Japanese and Chinese) and Caucasian groups have relatively low

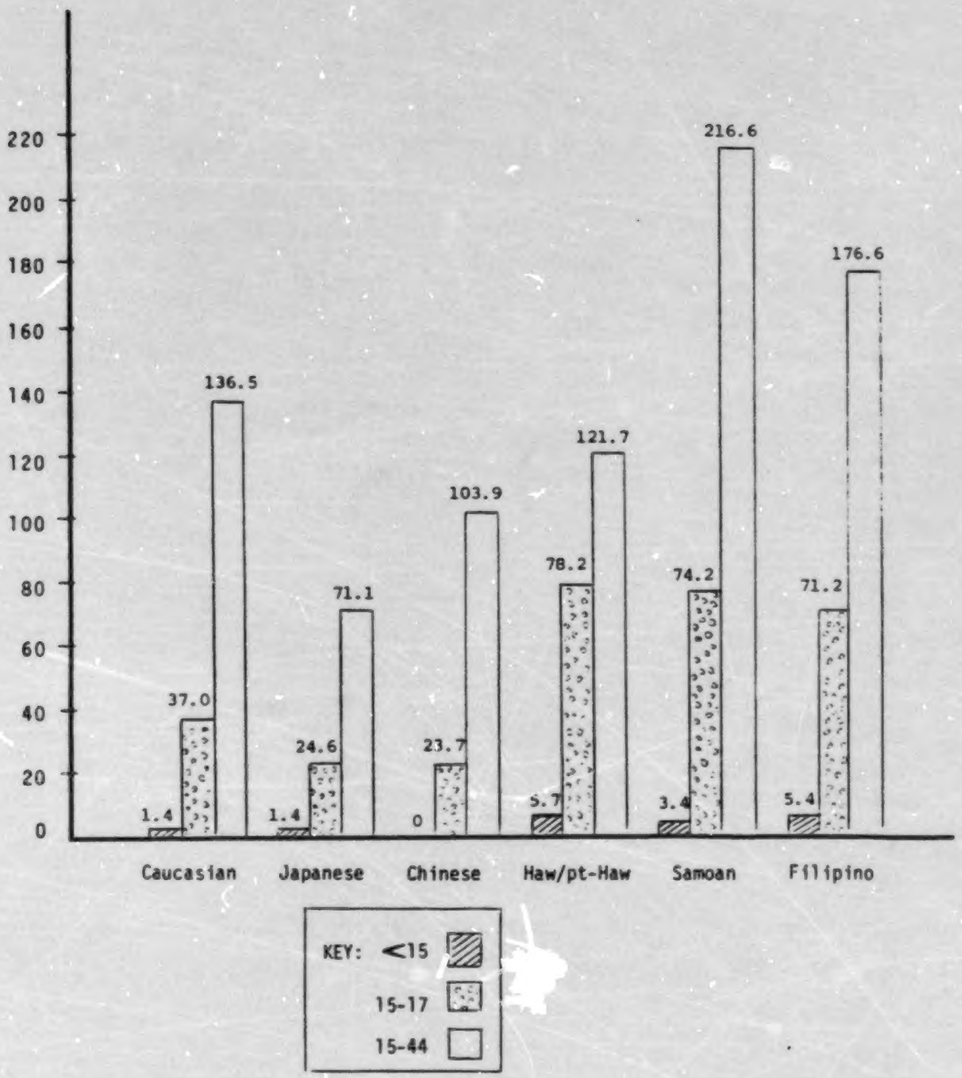


Figure 7

Age Specific Pregnancy Rates per 1000 by Ethnicity for Fed FY 1981 rates. Hawaiian/part-Hawaiian teen pregnancies made up 34 percent of all teen pregnancies in 1981, although this ethnic group represents only 18.9 percent of the population (see Figure 8). Furthermore, the Hawaiian/part-Hawaiian ethnic group accounts for 38 percent of the repeat pregnancies to teens.

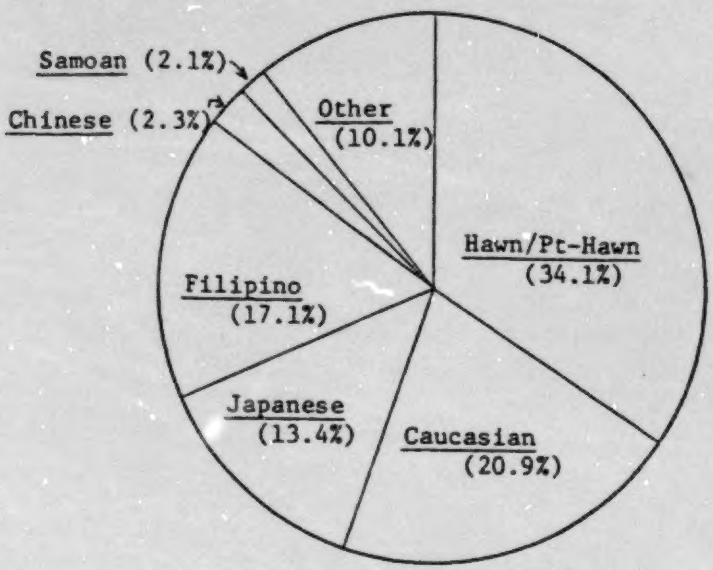


Figure 8

Percentage of Pregnancies to Females 15-17
By Ethnicity, Fed FY 1981

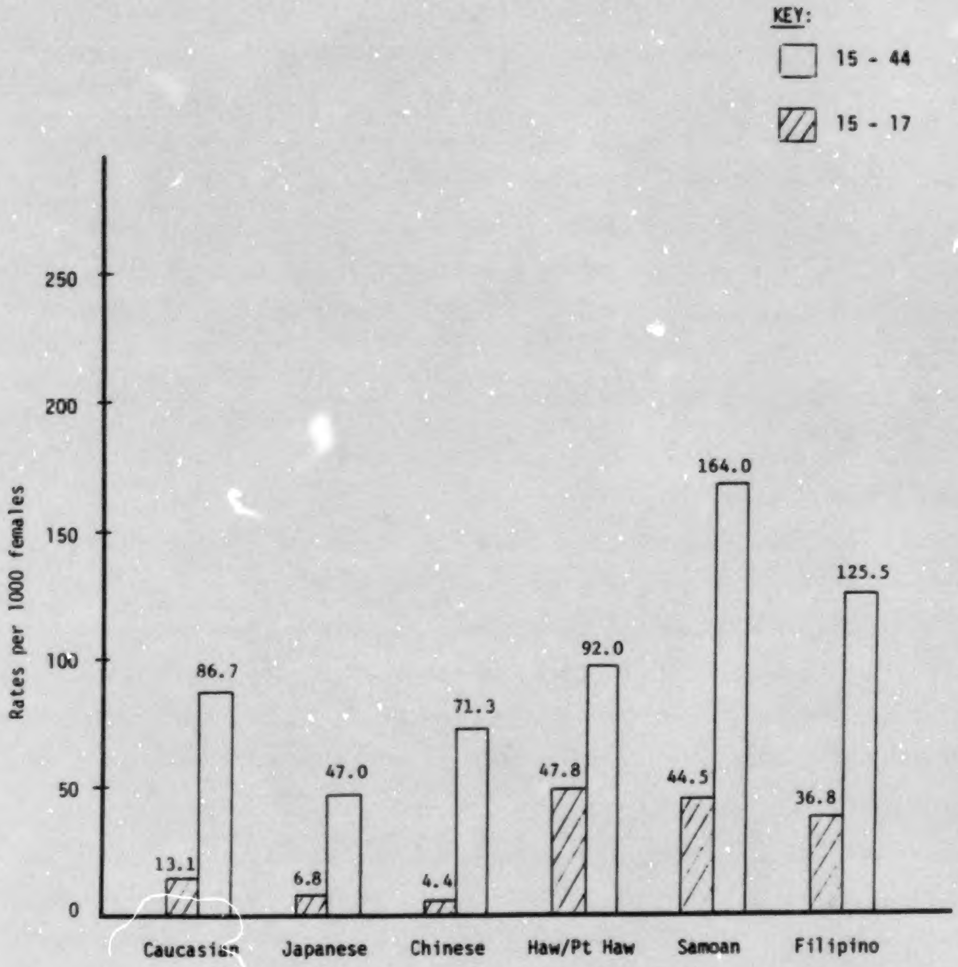
These data reflect the heavy influence the various cultural norms and socioeconomic differences in Hawaii have on fertility and sexual decision making and resulting behavior. In Hawaiian, Samoan and Filipino traditions, all of which are Pacific Island cultures, early childbearing is an accepted and common practice. This does not mean, however, that the act of premarital sexual relations is culturally approved. Once a girl is pregnant however, parents and peers of these cultural traditions encourage the girl to continue the pregnancy and keep the baby. The child is taken into the home and either cared for by the young mother or adopted by a close relative such as grandmother or aunt through a local practice referred to as hanai. These groups are characterized by high teenage birth rates, high pregnancy rates, and low abortion rates.

The Chinese, Japanese and Korean cultural traditions of East Asia have very different attitudes toward teenage pregnancy and teenage childbearing out of marriage. An unmarried pregnant teen can bring shame to the family and cause family members, and in particular the girl herself, to "lose face." Statistics show these groups to be later childbearers, to have high teenage abortion ratios, low teenage pregnancy rates and low teen birth rates.

Figures 9 and 10 are the 1981 age specific birth rates and abortion ratios by ethnicity. These data show less distinctions among ethnic groups for the total-age (15-44) abortion ratios than among the teenage groups. The abortion ratios for the 15-44 age groups, for example, range from 24 to 46 per 100 live births, while the ratios for teens 15-17 range from 53 to 380. Birth rates for the general population do not follow the same pattern as the teen rates. This indicates that teen pregnancy outcome statistics by ethnicity reflect values and norms regarding the acceptability of early and/or premarital childbearing. For all ethnic groups, however, there is a trend toward reduced birth rates and increasing abortion ratios for teens (see Figure 11).

Area of residence also showed wide variations among teenage rates (see Gannaway et al., 1981). For example, between 1975-1979, the Waianae Coast on Oahu, a community with high numbers of Hawaiian/part-Hawaiians, had the highest rates of teen pregnancies and teen births for the state. The average teen birth rate for the Waianae Coast areas was three times greater than the state five-year average rate of 15.1 and the average pregnancy rate for Waianae Coast (73.2) was twice that for the state. East Honolulu, downtown Honolulu, Hawaii Kai and Kailua had abortion ratios for the five year period far above the state average.

As of 1980, pregnancy rates by districts are no longer available. In 1979, the Department of Health changed its requirement for physicians reporting elective abortions. Physicians now need only report the clients county of residence but not necessarily the client's name nor district of residence. This well-intentioned policy to protect the privacy of women has resulted in unfortunate repercussions for program planning in the area of maternal and child health. As programs are organized according to districts, county-particular data are less than adequate. Recommendations related to this problem can be found in the last section of the final report.



(rates per 1000 females)

Figure 9

Age Specific Birth Rates by Ethnicity
Fed FY 1981, Hawaii State

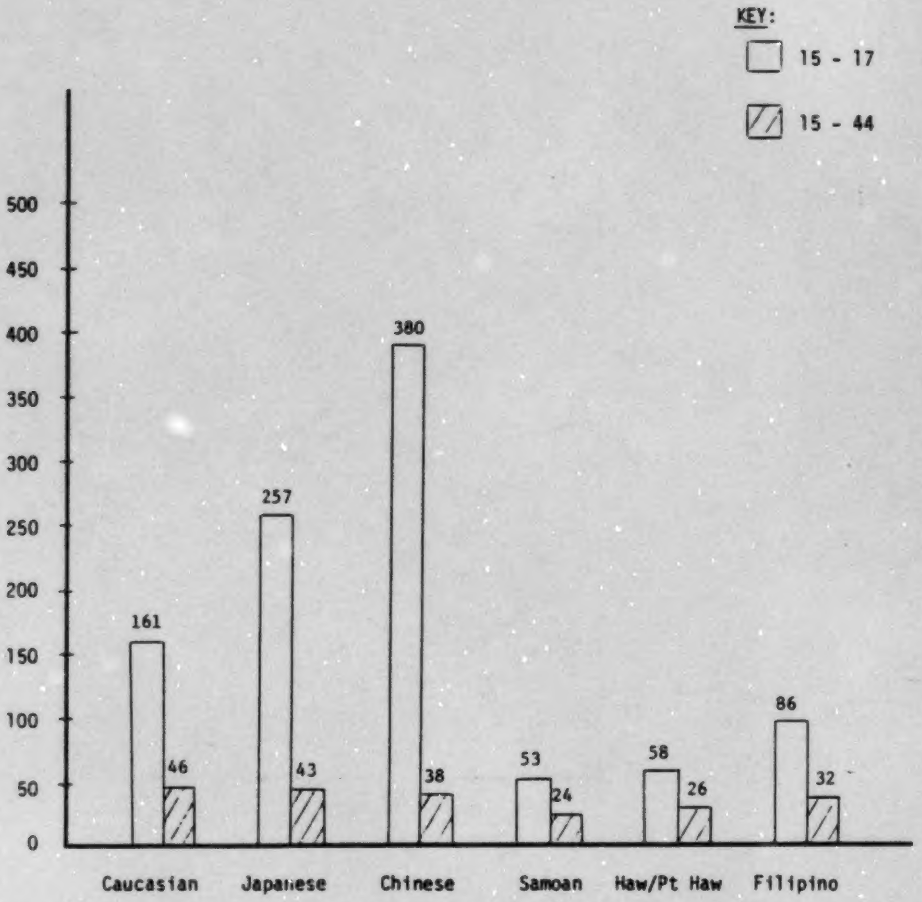


Figure 10

Age Specific Abortion Ratios FY 1981
by Ethnicity per 100 Live births
for 15-17 vs. 15-44 age groups

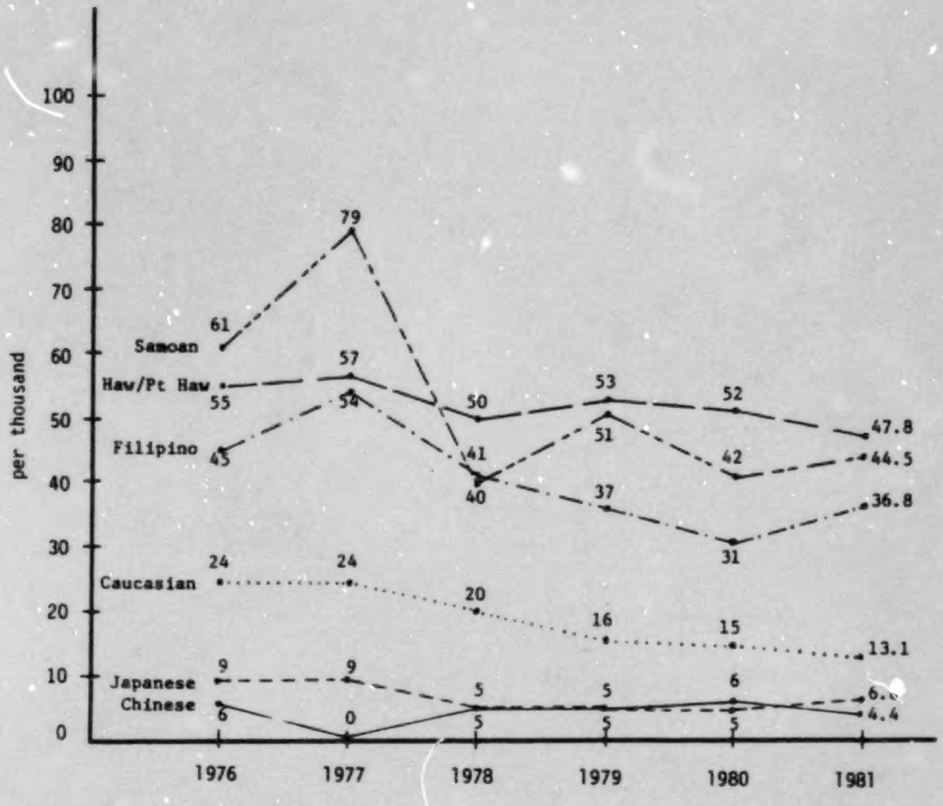


Figure 11

Trends in Age Specific Birth Rate by Ethnicity for Age Group 15-17, Hawaii State, 1976-1981

(per 1000 females)

# SECTION III. THE DEVELOPMENT AND ORGANIZATION OF THE HAWAII DEMONSTRATION PROJECT TO AVERT UNINTENDED TEENAGE PREGNANCY

# SECTION III. THE DEVELOPMENT AND ORGANIZATION OF THE HAWAII DEMONSTRATION PROJECT TO AVERT UNINTENDED TEENAGE PREGNANCY

Title X funding was approved in October 1978 by the Department of Health, Education and Welfare for implementation of the Hawaii Demonstration Project to Avert Unintended Teenage Pregnancy. These funds were made available for a three year period to the Family Planning Services Section, Hawaii State Department of Health for the development, implementation, and evaluation of demonstration projects in Hawaii.

The Title X funds were administered by Research Corporation University of Hawaii (RCUH) and Kapiolani Children's Medical Center (KCMC) through contractual agreements with the Department of Health. The position of Principal Investigator of the Project was held by the Supervisor of the Family Planning Services Section, DOH.

Overall, Project objectives were focused on the reduction of adolescent fertility rates and project documentation. The following are the two original project objectives:

(1) To reduce by 25 percent in three years unintended pregnancies to girls under 18 in the target population, and

(2) to document these projects so that their findings can be used in future program planning and policy development relating to teenage pregnancy in Hawaii and elsewhere.

In the development of the project proposal, it was decided that the monies available annually could be best utilized by testing a variety of approaches to adolescent pregnancy prevention. The Project was divided into three discrete projects to investigate different approaches to the reduction of teenage pregnancy. As the initial intent of Region IX in funding the project in Hawaii had been the demonstration of a networking approach, one project focused entirely on networking. The other projects were conceptualized from local interests.

The three projects encompassed by the Demonstration Project included: (1) a hospital-based program at Kapiolani Children's Medical Center which investigated how to reduce the incidence of repreat pregnancies to girls under

18 through counseling and educational interaction in the setting of a major OB-GYN hospital; (2) a community network approach on the Island of Kauai by means of a committee representing a broad range of service agencies and individuals that worked in planning, advisory and evaluation capacities to test innovative services for teens; and (3) a Department of Education program, piloted in the Windward School District, developed and integrated into the Statewide Health Curriculum a K-12 Family Life Education Supplement designed to increase students' knowledge of and skills in decision-making, problem-solving, communications, inter-personal responsibility, biological and social aspects of sexuality, contraception and parenting, at appropriate developmental stages.

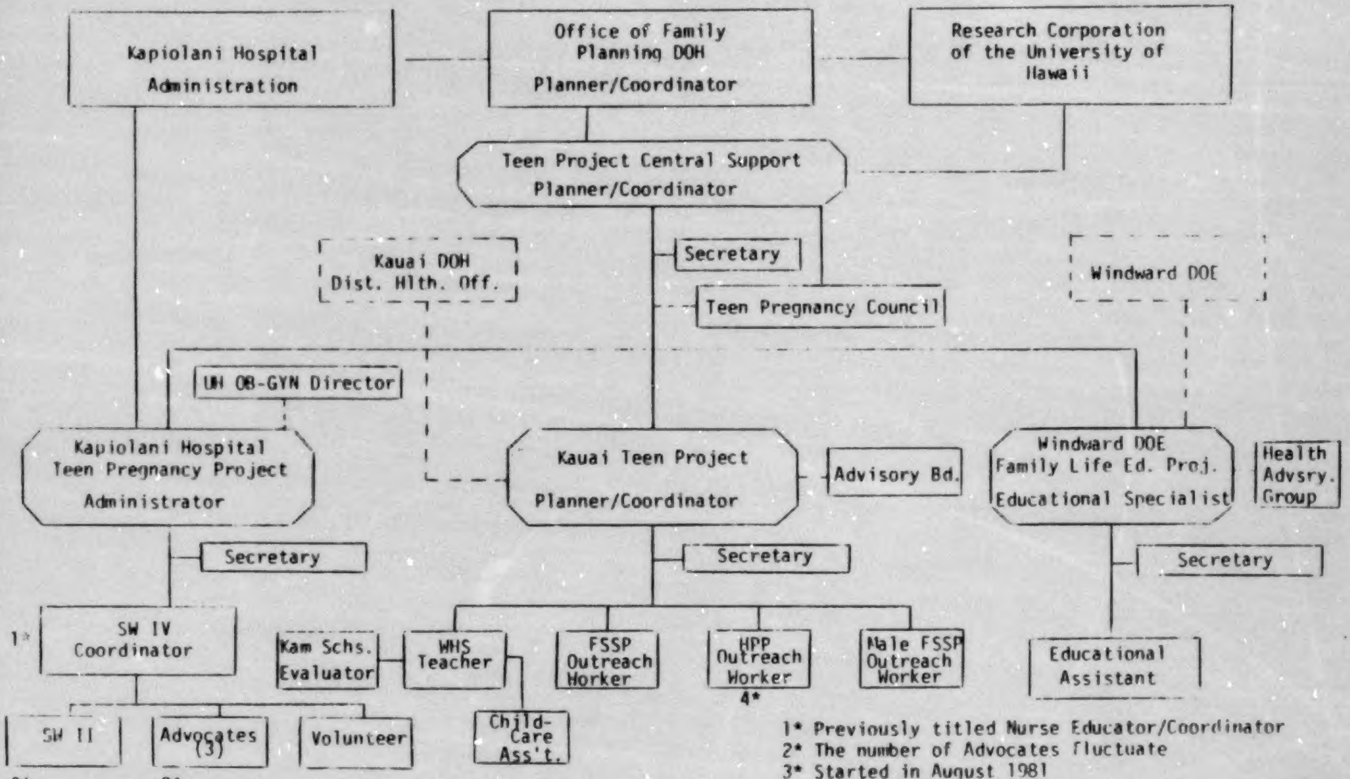
A Central Support Unit located at the Department of Health Family Planning Services Section coordinated and administered all three projects. (See Figure 12 for organizational chart.)

Each of the individual projects was administered by either a planner/coordinator, project administrator or educational specialist who were responsible for planning, fiscal management, monitoring, documentation and evaluation. A tri-project coordinator administered the Central Support Unit in addition to supervising the three projects and conducting community awareness and training activities.

The Windward Family Life Education and Counseling Project (FLE Project) was developed through the cooperative efforts of the Department of Education and Department of Health. Although no formal agreement had ever been drawn up, the FLE project was considered by both agencies as a collaborative endeavor. The Department of Education provided office space, clerical assistance, supervision, guidance and evaluative services without cost.

The contractual agreement with Kapiolani Children's Medical Center (KCMC) required that the Kapiolani Teen Intervention Project adhere to hospital policies regarding fiscal management, personnel classification and hiring regulations. While this organization made the project an integral part of the hospital, it did put some constraints on project planning and implementation. The Department of OB-GYN John A. Burns School of Medicine, University of Hawaii donated office space, telephones, clerical assistance and office equipment for the project. Key hospital staff participated in the project steering committee.

HAWAII DEMONSTRATION PROJECTS TO AVERT UNINTENDED TEEN PREGNANCIES: ORGANIZATIONAL CHART


Kapiolani Hospital Administration
Office of Family Planning DOH
Planner/Coordinator
Research Corporation of the University of Hawaii
Teen Project Central Support
Planner/Coordinator
Secretary
Kauai DOH Dist. Hlth. Off.
Teen Pregnancy Council
Windward DOE
UH OB-GYN Director
Kapiolani Hospital Teen Pregnancy Project
Administrator
Kauai Teen Project
Planner/Coordinator
Advisory Bd.
Windward DOE Family Life Ed. Proj.
Educational Specialist
Health Advsry. Group
Secretary
Secretary
Secretary
1*
SW IV Coordinator
Kam Schs. Evaluator
WHS Teacher
FSSP Outreach Worker
HPP Outreach Worker
4*
Male FSSP Outreach Worker
Educational Assistant
SW II
3*
Advocates (3)
2*
Volunteer
Child-Care Ass't.

1* Previously titled Nurse Educator/Coordinator
2* The number of Advocates fluctuate
3* Started in August 1981
4* Ended in June 1981

The Kauai Teen Demonstration Project received on-island supervision and support from the Kauai District Health Office. Office space and use of Xeroxing equipment was provided by Kauai's DOH and an office was made available at one of the local public schools. A number of local agencies assisted in the planning, monitoring and evaluation of the project through participation in the KTDP Advisory Group.

The complexity of the project at first glance appears overwhelming; however, a closer analysis of the organizational structure of the project substantiates the interagency cooperation and linkages that existed throughout the development and operations of the Project.

The following section will document the operations and impact of the individual projects and the Central Support Unit.

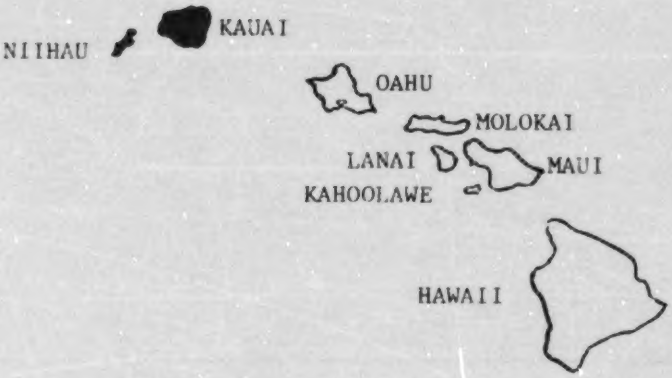
# SECTION IV. THE THREE PROJECTS: OPERATIONS AND IMPACT

## SECTION IV. THE THREE PROJECTS: OPERATIONS AND IMPACT

This section will provide a summative description of each project and their evaluation findings. Detailed reports for each project, which include descriptions of project settings, more complete statistical information, and comprehensive discussions of project operations and impact, are available from the Family Services Section, Hawaii State Department of Health. The objective in preparing this section of the executive summary is to provide the reader with a brief overview of each project individually as well as their relationship with the overall Project and Central Support Unit.

### The Kauai Teen Demonstration Project

### The Kauai Setting



The island of Kauai was chosen for the Federal Title X Demonstration Project by the State Office of Family Planning Services because of the island's intransient population, its recognition as a small "closed" community, where networks could be identified and linkages tracked, and the similarity of teen pregnancy rates on Kauai to statewide rates. It was believed that this type of setting would afford an opportunity to investigate a networking approach to the reduction of teenage pregnancy.

Kauai County includes the islands of Kauai and Niihau, plus the tiny uninhabited islands of Kaula and Lehua. Lihue, the county seat, is on Kauai and is 103 statute miles from Honolulu. It is the center of major economic activities for the county.

Kauai County had a total resident population of 39,082, according to the Federal 1980 census. About 226 of this total population live on Niihau. The largest towns on Kauai are Kapaa with 4,467 residents in 1980 and Lihue, population of 4,000. Niihau, a privately-owned island not accessible to the general public, is entirely rural. It is the last community in Hawaii where native Hawaiians, secluded from the outside world, preserve the lifestyle and language of old Hawaii.

Data on the ethnic makeup of Kauai show these percentages: Caucasian, 28.5; Filipino, 26.2; Japanese, 25.0; Hawaiian and part-Hawaiian, 14.6; Chinese, 1.3; other, 4.4 (State DPED from 1980 Census Data). Kauai County, like the state, has no ethnic majority.

The median age of the population in Kauai County is 27.1 years. There were approximately 3,433 adolescents between the ages of 13-17, including 1,691 females (1980 Federal Census).

The thirteen public and seven private schools on Kauai and one public school on Niihau had a total enrollment of 8,686 students in 1980-81, in kindergarten through grade 12. The island has three public high schools. Students from the island of Niihau attend Waimea High School.

Adolescent pregnancies prior to the Project:

Table 14 summarizes the number and rates of teenage pregnancy on Kauai prior to the project. During FY 1975-1978, 171 pregnancies occurred to girls under 18 years of age. The average age specific fertility rate for 1975-78 was 25.5 per 1,000 females 13-17 years of age, which ranged from 22.4 in 1977 to 29.3 in 1976. Because of the small population of girls aged 13-17 on Kauai, small fluctuations in adolescent pregnancy numbers annually result in relatively large fluctuations in rates. Statistical tests were done to determine significance of rate variations. These will be discussed further toward the end of this chapter.

Approximately half (53%) of the pregnancies to minors in 1975-78 resulted in live births; in other words, 97 infants were born to adolescents on Kauai in four years.

Table 14

Reproductive Events by Type and Year
to Females Under Age 18, on Kauai

| Fed. Fy Oct. 1- Sept. 30 | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| Live Births | 23 | 29 | 19 | 26 |
| Elective Abortions | 16 | 12 | 14 | 21 |
| Standard Fetal Deaths* | 0 | 7 | 2 | 2 |
| Total Pregnancies | 39 | 48 | 35 | 49 |
| Rate per 1000 females ages 13-17 | 23.8 | 29.3 | 22.4 | 26.3 |

*Standard Fetal Death or Miscarriage.

Source of Vital Statistics: Maternal and Child Health Branch,
Hawaii State Department of Health, 1980.

Rates based on population estimates from the Health Surveillance Data for each fiscal year.

## Kauai's agencies serving adolescents

A small-island community has very close contacts with different agencies that service adolescents. Often agency providers are themselves prominent in their individual neighborhoods and the community as a whole. Agency personnel on Kauai will often be involved with other agencies as part of their work and community activities. Agency providers wear "many different hats" at different times in support of their own agency's purpose, and to lend their assistance to other human service agencies. The limited pool of resources and personnel targeted toward those who are in need of services produces natural linkages among agencies.

Inter-agency cooperation is a must on an island community and is a manifestation of the old Hawaiian system of "kokua" or mutual assistance. Networking among agencies on Kauai is essential and has been operating for a long time. The Kauai Teen Demonstration Project used this existing system and focused it to create a greater flow of services toward the adolescent population to reduce the rate and problems of early pregnancy.

Approximately 40 agencies and organizations both public and private whose purposes include working with teens exist on Kauai. The Kauai Teen Demonstration Project, largely through the activities of the project coordinator, was able to involve approximately one-half of them in the initial planning and implementation phases.

### Kauai's Children Study

Kauai's Children Come of Age study (Werner and Smith, 1977) was extremely influencial in the selection of Kauai as a site for the Project and in setting the stage and receptivity among Kauai's social service agencies for the Kauai Teen Demonstration Project.

This outstanding body of background data very relevant to the problem of teen pregnancy on Kauai was available in the form of a 20-year study of 600 children on Kauai, virtually all the children born on Kauai in the year 1955. These children were followed-up at the ages of 2, 10 and 18. The findings were published by the University Press of Hawaii in two books entitled, The Children of Kauai (1971) and Kauai's Children Come of Age (1977) written by Emmy E. Werner and Ruth S. Smith. This study established correlations between perinatal stress and consistently higher rates of health problems, mental retardation, and learning disabilities in children except where a very high quality of mothering was observed at the two year old interview.

Girls who were identified at an early age as needing long-term mental health services, remedial education or other services had high rates of pregnancy during adolescence. However, in this study only one out of five of the teens who became pregnant were in this category. Eighty percent of the girls who did get pregnant in adolescence were not identified early as to having problems.

The 1977 study on Kauai indicated that pregnant teens felt they lacked opportunities, self-esteem, close friends, parental support and understanding, and faith in the efficacy of their own efforts. Pregnant teens were significantly more likely than non-pregnant teens to feel that events happened to them as a result of fate or other factors beyond their control (external locus of control). Low self-esteem compounded by an unstable social and family life contributed to an adolescent's low educational and vocational aspirations, and minimal participation in school activities. Their plans for the future were ill-defined or unrealistic. Only one-third had vocational plans and only 4 percent expressed a concern about being able to use their abilities. The existence or lack of father's understanding and support, consistent enforcement of rules, along with the level of education achieved by the mother appeared crucial.

Serious problems in social and family life, intense conflict feelings, little self-insight, low self-esteem were especially characteristic of the pregnant teenager. It was thought that the adolescent may fail to prevent pregnancy in hopes it will not only define her role and determine her activities, but provide, through the baby and/or father, the love and companionship which she perceived as lacking in her life.

Mental health problems were noted in many teenage mothers, "a disproportionately larger number of whom had themselves been exposed to moderate perinatal complications as infants. The higher risk of perinatal stress in their offspring can be inferred from the results of other studies, but the presence of instability in their parents' and their own family and in their relationship with their own infants, makes them a prime target for the perpetuation of a new generation of serious behavior problems and prime candidates for interventive and prevention measures" (1977, p. 219).

The study indicated that only one out of ten pregnant teens sought or obtained outside help. Peers, parents and older friends ranked far above any kind of professional help as a source of counsel and emotional support. Factors contributing toward personal improvement "were the youth's perception of parental understanding and peer support, a greater belief in the efficacy of their own actions, hard work, persistence and better communication skills" (1977, p. 216).

These findings were used in the development of project goals and objectives and in the selection of innovative activities to reduce the incidence of unintended teenage pregnancy.

## Impact of setting on project

Ecological and cultural diversity of Kauai with limited resources and opportunities creates differences in people's view of socio-health problems. Such diversity often makes it difficult for a community to develop a commonly-shared view or strategy on such problems as adolescent pregnancy, care, and prevention. The importance of community setting on program planning was recognized and utilized in the Kauai Teen Demonstration Project (KTDP).

The concern of the Kauai Teen Demonstration Project focused on the community attitudes regarding adolescent sexuality and early pregnancy. Sexuality is a sensitive issue in any community, especially one which is multicultural with a strong sense of tradition. Traditional communities wish to remain intact and in control by handing down values and behavior from parents to children. Such a community could to some extent see the Project as a potential threat.

Because of the wide variety of cultural groups on the island, there are also divergent practices and values concerning family, sexuality, and early pregnancy. Cultural beliefs and values, as well as socio-economic factors, impact on the rates of teen pregnancy, its acceptability within the family, and pregnancy decision-making.

In a "closed" community these factors become increasingly important as individuals of specific ethnic groups tend to congregate together. These values and practices were important in deciding whether teen pregnancy was a problem on Kauai and in the approach taken to deal with teen pregnancy in an acceptable manner.

## Project Goals and Objectives

To reduce the number of pregnancies for girls under the age of 18, the Kauai Teen Demonstration Project (KTDP) examined the feasibility, process, and impact of developing a network of agencies and individuals concerned with teen pregnancy in a small-island community. The practical assumption was to maximize existing community resources and concerns focused on adolescent pregnancy to design and implement innovative approaches for the reduction in adolescent pregnancy rates. The Project began in January, 1979, with the hiring of a project coordinator and was proposed for three and a half years. The initial planning group, consisting of Kauai Parenting Task Force members and Kauai District Health Office staff, gathered in February, 1979, through the leadership of the project coordinator. Preliminary activities centered around identifying existing community agencies and resources concerned with adolescent pregnancy and inviting them to participate in the planning phase.

A planning committee was organized to allow input from many different groups in the development of the project. The group's first task was to assess the needs/resources of the community. Probing the feelings of a multi-cultural community which has a strong plantation heritage with profoundly traditional and family orientations on issues of adolescent sexuality and pregnancy was not an easy task. It was during the planning phase that the committee clarified program objectives, enhanced community and agency linkages, provided an opportunity for members to examine their assumptions about teen pregnancy, and sought strategies which were appropriate in meeting the overall goals of the Project.

The program goals and objectives clarified after the planning phase were as follows:

Goals:

1. to reduce pregnancy for individuals under the age of 18 by 25 percent through existing community resources;
2. to prevent and/or delay the second pregnancy during the teenage years by reducing the stress of the first pregnancy and its related outcome.

Objectives:

1. The Kauai Teen Demonstration Project will establish a network of community agencies who impact on teenagers to plan, implement and evaluate a project.
2. Documentation of the "community network" process will occur through minutes, data collection, and pre- and post-testing so that the program can be implemented elsewhere.

3. Project efforts will aim at improving attitudes toward and increasing knowledge of sexuality and pregnancy for teenagers, health and educational professionals, parents and significant adults and the community at large.
4. Improvement in present support systems will heighten through increased referrals among agencies and individuals, providing more information for significant adults and providing more direct service for the pregnant teenager.
5. More direct services will be provided for the male population of Kauai through specialized programs and the integration of a male component into the present health guidance programs.

The target population selected included health and education professionals, parents and general public, teen mothers and students. Emphasis was continually placed on the need for the KTDP not to become institutionalized within the service delivery network, but rather remain a community-based approach utilizing existing agencies to increase coordination and service flow for adolescents. To assure this, innovative programs for reducing teen pregnancy would be implemented by agencies with KTDP contractual monies. Project objectives were met through sub-projects developed and implemented by local service agencies as well as through activities conducted by the project coordinator. It was assumed that improved community awareness, professional education, and service linkages would result in increased numbers of adolescents seeking direct services. Inter-agency cooperation was important because girls who get pregnant often have many other problems and are in need of a variety of services. In the planning phase, emphasis was placed on getting accurate, consistent educational messages through the agency network. The Project was to facilitate the kind of linkages, advocacy, and support teens need to make appropriate decisions, effectively act on them, and obtain available assistance as required.

Through a process of consensus decision-making, the planning group carefully outlined possible activities/strategies and sought program proposals from agencies that could meet the stated objectives.

## The networking approach

Since networking was the conceptual framework behind the funding and approach of the Kauai Teen Demonstration Project, it was important to investigate both the process and structure of the network developed. Project documentation briefly mentioned that the intent was to link up as many agencies, and groups such as clubs, churches, and individuals working within the community who have constant access or contact with adolescents. Networking was intended to open up the communication and information systems among these groups around the issues of preventing unintended pregnancies and supporting girls who are pregnant. It involved the coordination of existing services to limit duplicative efforts and reduce gaps in servicing for teens.

Obviously this networking approach recognized that no one agency or group provides the full range of services to address all phases of a problem; such as adolescent pregnancy. The network approach to planning assumes that most complex human service problems required the attention of several agencies and groups. Networking allowed each agency to deliver the service each is most qualified to contribute; cooperating with others the total problem could be addressed.

## Needs/resource assessment of target population

The six-month planning phase of the Kauai Teen Demonstration Project was largely used to clarify objectives and realistically plan activities which would lead to a reduction in teen pregnancy.

A survey among teens and two community forums were conducted.

One hundred fifty-six people were surveyed by the members of the KTDP planning group in April, 1979. Of the 156 polled, 87 were adolescents under the age of 18 (69 females and 18 males), representing approximately 2.5 percent of Kauai's 13-17 year-old population. Questons in the survey focused on attitudes to teenage pregnancy. The purpose of the questionnaire was to determine whether teens perceived teen pregnancy to be a problem on Kauai. Of the 69 females and 18 males surveyed, 81 percent and 50 percent respectively felt teen pregnancy was a problem on Kauai.

Two community forums were held in April, 1979, on the west side and east side of Kauai to receive community input, other than that shared by the members of the core planning group of the Kauai Teen Demonstration Project. Fifty-five individuals attended the community forums, including agency personnel, parents, and a few teens and religious leaders. The KTDP coordinator introduced the Project, its objectives, and gave results of the teen attitudinal survey.

From the community forums and survey of adolescents, those community members approached perceived teen pregnancy as a problem on Kauai. Culturally, however, the extent of the perceived problem varied. Hawaiians and Filipinos generally felt that teenage pregnancy was less of a problem because the elders or parents took care of the younger children; whereas, the Caucasian and Oriental populations required the teens to assume greater responsibility for the care of their own children.

During the assessment process it was also necessary to identify the existing resources in the community for adolescents. A list of some agencies and groups in the community was prepared. It was found that prior to the project, no programs or services were specifically directed at the pregnant teen. Only two organizations had activities geared to the prevention of adolescent pregnancy, schools and Hawaii Planned Parenthood/Kauai.

In conclusion, there were indications that the important aspect of the original needs/resources assessment conducted by the KTDP planning group was the review and deliberation of existing community services working with adolescents. Discussions conducted were centered around topics of how agencies related to each other; what agencies offered what services to teens; what kind of atmosphere did these agencies provide teens and where were the gaps in the existing system. It appears that the assessment process provided an important initial direction and team building so needed by ad hoc groups, such as, the KTDP planning committee.

## Description of Sub-projects and Central Office

Three sub-projects were selected to be funded and implemented in the fall of 1979, in addition to a central office component: Hawaii Planned Parenthood/Kauai's Teen Health and Peer Counseling Program, Family Support Services

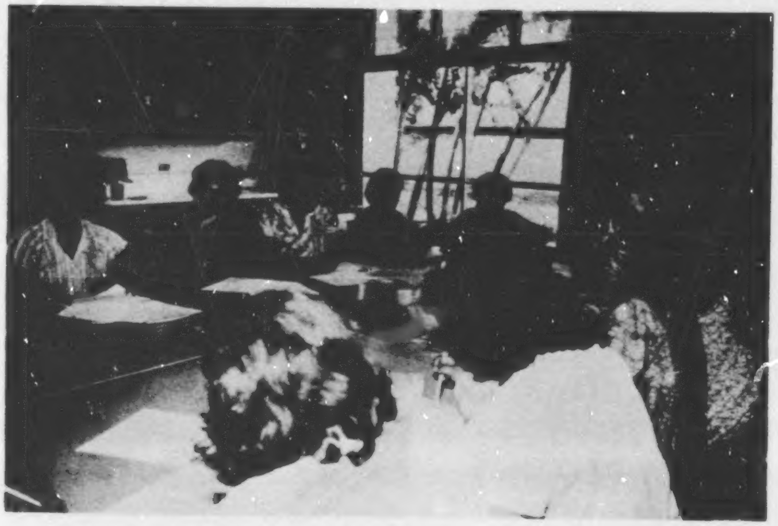
Project's Teen Support Programs, and the Waimea High School's Parenting and Child Care Lab Program.

Kauai Teen Project central office (January 1979 to June 1982)

The Kauai Teen Demonstration Project central office staff coordinated the activities of funded sub-projects, and facilitated the KTDP advisory group in monitoring all KTDP activities to enhance the network approach and to lessen duplication of efforts and services. During the three years, the coordinator established and facilitated the planning and advisory committees, coordinated agency services for teen pregnancy and prevention, implemented and monitored sub-projects, provided community awareness and training, and prepared statistical data.

The central office activities were the major approach and effort of networking among community agencies and resources impacting on adolescents to reduce pregnancies. Emphasis was placed on existing service linkages to get agency-providers' participation in improving services to adolescents, filling gaps in the flow of services, and long-term commitment beyond the 1982 demonstration period.

Analysis of the data from documentation shows the strengths of the central sub-project activities were getting people involved, establishing community



awareness of teen pregnancy through strong linkages with agencies, clarifying a school and community referral system for pregnant teens, and administrative support to sub-projects in filling gaps in services.

The KTDP Advisory Group was organized and facilitated by the project coordinator. The Advisory Group was made up of approximately 15 community agencies. Members assisted the coordinator in planning, monitoring and evaluation of sub-projects which made the project a community effort. This type of community involvement helped to prevent any controversy or public opposition.

As schools were a critical link to identifying adolescents who were pregnant or at high risk of becoming pregnant, meetings were conducted among school personnel to create linkages with the project. These meetings were held at all three high schools by the coordinator and sub-projects staff to formalize a referral system that would clearly identify all pregnant girls. By 1982, the in-school referral procedure was developed as indicated in Figure 13.

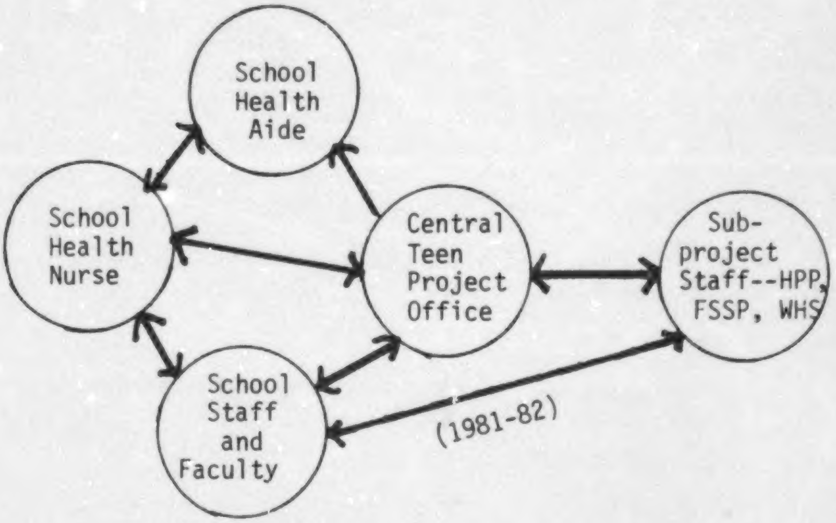


Figure 13

In-School Referral System

In order to support the mission of the KTDP, the coordinator was involved with other community agencies so as to affect policy changes in those agencies to include more activities appropriate for the care and prevention of adolescent pregnancy. For instance, the coordinator participated on the advisory committees of six health and social service agencies on Kauai.

The coordinator attended and/or sponsored activities to further community awareness of teen pregnancy and the community networking approach. The coordinator, sub-project staff, advisory committee members, and many others participated in over 40 activities.

The most important training workshops conducted by the KTDP were the Elson Adolescent Development training sessions held in June 1980 and March 1981. Approximately 35 participants attended, mostly agency providers who were interested in adolescent development and/or working with pregnant teens. The workshop evaluation showed a positive response to the workshop content and facilitators.

The central office cooperated with agencies to implement training sessions for adults and students which would lead to an increase in awareness of the problems of teen pregnancy. For example, the KTDP cooperated with the YWCA to implement a series of baby-sitting classes. In working with agencies on training sessions to increase greater awareness among adults, emphasis was placed on their capacities to implement training sessions beyond the 1982 demonstration period.

Increasing awareness of the KTDP purposes and sub-projects activities to the community was done by a media campaign in late 1979 over local radio stations and through local newspapers. Films and pamphlets were advertised as being available through the central sub-project office. School and community health fairs were conducted. Also, the coordinator gave one presentation each to the Lions' Club and Rotary Club.

The coordinator, working with DOE and DOH, initiated a teen newsletter developed and written by teens. This was the major primary prevention attempt by the sub-project coordinator to reach the teen population. There were five issues of the newsletter from April 1981 to December 1981. The Department of Health, Health Educator was given the responsibility to continue this effort. It appeared that the teen newsletter has great potential to reach large numbers of adolescents. However, the teen newsletter was underutilized because of on-campus circulation problems and lack of meaningful health information.

Overall, the central office was extremely important in the planning and coordination of project activities, in the establishment of a community network serving pregnant teens and in the evaluation of project impact. In any networking attempt, it is advisable to have one person responsible for coordinating interagency linkages and other networking activities.

The position of a coordinator for a community project of this kind was important. In a small island community with limited programs and monies, it was imperative that a position exist to handle the day-to-day operations, to coordinate project activities, and to encourage participation from people.

Review of file documentation told an important story about the amount of time, energy and hard work it took to establish the necessary linkages among groups and individuals on the issue of adolescent pregnancy.

Hawaii Planned Parenthood teen health counseling program (Oct. 1979 to June 1981)

This sub-project was contracted to Hawaii Planned Parenthood/Kauai (HPP) to provide both direct and outreach services. HPP is the only publicly supported family planning clinic on Kauai.

With additional KTDP funds, the existing half-time HPP outreach position was augmented with a second half-time position with specific tasks of providing increased opportunities for adolescents to secure accurate information on reproduction health and improved contraceptive behavior to reduce the number of unintended pregnancies.

The HPP outreach counselor prior to the KTDP had largely conducted class presentations with a somewhat narrow contraceptive orientation. With KTDP monies the position expanded to incorporate a much broader educational context, including decision-making, adolescent development and sexuality.

The teen health counseling component operated in all three public high schools. Increased hours of the HPP outreach counselor provided in-school counseling, classroom presentations, and other community outreach contacts. Attention to the male roles and responsibilities in reproduction, contraception, and sexuality was emphasized in classroom presentations, and outreach counseling. By providing increased student awareness and contacts, sexually active teens (13-17) would seek contraception counseling through referrals to HPP clinics or other community resources.

The HPP worker by being visible, concerned, and accessible assisted students in thinking critically about their values, roles and responsibilities regarding sexual activity and early childbearing. The program target groups were both sexually active and nonactive students. The secondary target groups were teachers, parents, community groups and other agency personnel.

Presentations about adolescent development and pregnancy among teens created a more open environment where the issues of early sexuality and pregnancy were discussed.

Analysis of data showed an increase in the number of adolescents receiving information on reproductive health. In the calendar year 1977 and 1978, before the KTDP supplemental funds, the half-time HPP worker made approximately 20 school presentations with a total number of students contacted approximately 500 for each year. Yet in the 20 months of the sub-project, 100 presentations were given to 2,545 students grades 8-12 in all three high schools.

Schools allowed for the HPP worker to establish and develop on-campus counseling hours. This provision of on-campus counseling hours indicated a close working relationship between Department of Education and Hawaii Planned Parenthood on Kauai.

Table 15 shows the numbers of counseling and follow-up contacts made by the outreach worker for the 15 months of operation.

Table 15

Counseling and Follow-up Contacts

| Counseling and follow-up contacts: | |
|---|---|
| On campus: | 230 |
| Off campus: | 65 |
| Follow-up for HPP clinic services: | 84 |

The HPP worker's impressions were that most common problems faced by teens seeking in-school counseling included: fear of possible pregnancy, desire to contracept, and other adolescent development concerns, such as, dating, peers and puberty.

It appeared that the frequent awareness and visibility of the HPP worker among students on campus did contribute to more students seeking services representing a change in attitudes toward HPP as being more acceptable and accessible.

Table 16 indicates a change in the number of adolescents seeking HPP clinic services.

Table 16

Project Impact on Teens under 18 Years Old Seeking HPP Clinic Services

| Calendar Year | Total No. of Teens Served | Ratio of Visits to Patients | Total No. of Visits by Teens | % of Teens to Total Clients Served |
|---|---|---|---|---|
| 1976 | 51 | 1.8 | 92 | 8% |
| 1978 | 79 | 1.78 | 141 | 9% |
| 1980* | 92 | 1.93 | 178 | 14% |
| 1981* | 77 | 1.70 | 131 | 13% |

* Project year

The years 1976 and 1978 represent pre-project data on teen clients attending HPP. The HPP part-time outreach position was first filled in 1977. The data indicate that this outreach effort did have an impact on the number of teens seeking services at the family planning clinic. The number of clients for 1980 reflects the post-KTDP/HPP outreach program impact. From 1976 to 1980, the number of teens increased almost twofold. Due to HPP program priorities, the outreach position terminated in June 1981 and at the same time a clinic in rural Hanapepe closed. Both factors resulted in reduced numbers of teen clients in C.Y. 1981. However, the proportion of total clients who were teens was significantly higher during project years.

The HPP's outreach worker position was an important part of the total primary preventive approach of the KTDP. Unfortunately, this position was terminated by HPP/Kauai in response to reordering of agency priorities and internal personnel problems.

## FSSP Teen support programs

These sub-projects were contracted to Family Support Services Project (FSSP), a child abuse prevention program. The FSSP program activities were the major effort and approach in reducing or delaying second pregnancies. This approach was targeted towards girls ages 13-17 who were already pregnant or as a teen parent at high risk of repeat pregnancy. The primary method of achieving this goal was by reducing the stress and social isolation resulting from the first pregnancy and its related outcome.

In cooperation with the KTDP coordinator, the workers assisted the development of a more clearly defined referral system among pertinent agencies supporting the pregnant teen and/or recently delivered teen mothers. There appeared to be no formal support or referral services for these girls until the Kauai Teen Demonstration Project.

Funds from the KTDP supported a new aspect of the existing FSSP to focus services on the adolescent population, which was already defined as high risk according to previous research findings on child abuse and neglect.

The Teen Support Programs assist teen clients in understanding community services available to them and the provision for services. The purpose of the sub-project was to assist pregnant and parenting teens, and help them utilize community services to reduce stresses leading to child abuse, neglect, and/or repeat pregnancy. The workers increased agency linkages to provide a greater continuity of services in support of the pregnant teen and teen parent.

During the three-year implementation and evaluation phases, two distinctly different Family Support Services Projects serving teens were funded by KTDP monies: (1) Teen Support Services and (2) Teen Outreach Services.

### Teen Support Services (October 1979 to August 1980)

In October, 1979, FSSP was funded as one of the original sub-projects. An outreach worker position was added to the existing FSSP programs to provide support to pregnant and parenting teens. The objectives of this sub-project were to identify and contact every known pregnant teen/teen mother under the age of 18 and develop a support system for them through individual and group activities.

As a routine part of prenatal and postpartum medical care, adolescents were referred to the FSSF teen outreach worker. Responsibilities of the outreach worker included: (1) emotional support; (2) provision of a model of productive adult behavior; (3) counseling on normal adolescent growth and development and family relationships; (4) development of life goals and (5) provision of child care education and parenting skills. Practical services included transportation, babysitting, and client advocacy. The program offered the services of a worker on call 24 hours a day. The position provided direct referrals and worked with other community agencies to better serve the needs of adolescent clients.

To interact with the client as informally as possible and to make the client feel comfortable, group activities were offered. Meetings were planned around a specific topic, such as, prenatal care, breastfeeding, and the role of the father. Guest speakers and a variety of visual and educational aids (i.e., films, books, pamphlets) facilitated group sessions.

Follow-up activities were conducted with the intention of maintaining contact and continuity for the clients and for KTDP's information and records in FY 1980-81.

Due to budget constraints, employee turnover, and administrative changes, this teen support services and project was formally terminated in August of 1980.

The strength of this project was that it established a hospital-based support program specific to the needs of pregnant teens. It was instrumental in establishing the beginnings of a coordinated referral system within the community to the hospital via agencies. The project, also, brought increased awareness to hospital staff for more specific services to the target population.

The actual number of clients participating in the support program impacted on the cost effectiveness of this approach. During the 11 months, of the 46 girls who were referred to the program, only 18 were eligible and participated in the program.

There were a good number of individual and group contacts per month, however the number of active clients who participated regularly in the program was low (n=10). Contacting and motivating teen clients to attend meetings was extremely difficult. Many clients had no phone and often did not reply to mail. The sub-project called for group activities but as public transportation is not available, the worker spent an inordinate amount of time making transportation arrangements or transporting clients. After several months, it was suggested that the teen support worker downplay the group activities and strengthen the individual advocacy component.

What clients liked best about the teen program included the following: meeting a lot of people; meeting other girls own age and in similar situations; getting together to share feelings and our children; knowing how to handle the world and children better; can talk out problems with people who understand; having a counselor available to talk with and the support everyone gave when feeling depressed.

The program did seem successful in preventing repeat pregnancies. To this end, none of the active clients served by the sub-project had a repeat pregnancy during the short period of the project. Of all the teen pregnancies occurring in Federal Fiscal Year 1980 on Kauai, 26 percent were repeat pregnancies. This was 30 percent lower than the statewide repeat rate of 37 percent.

This approach worked with a group of teens who were easily identified and provided an acceptable support service which linked existing agencies, such as Family Support Services Project, Department of Education, and the Department of Social Services and Housing, to create ways to improve the flow of services to this target group. However, in a rural community of this sort, it is often impossible to get large enough numbers of teen clients, particularly parenting teens, to participate in these activities. For that matter, group activities provided an inefficient method of serving pregnant and parenting teens. If group activities are used in conjunction with other efforts, the program can make more impact in the community.

Teen Outreach Services (October 1981 to June 1982)

Supplemental funds from the KTDP supported another aspect of the existing Family Support Services Project. With the termination of the FSSP/Teen Support Services component in mid 1980 and the Hawaii Planned Parenthood/Kauai component in June 1981, a void was created in serving adolescents in meeting the goals and objectives of the KTDP during its final year.

The teen outreach services proposed was a blend of the previous FSSP/ Teen Support Services component and the HPP's approach to increase high school awareness of pregnancy through classroom presentations and on-campus counseling.

Strengthening the new KTDP/FSSP component re-established a hospital-based program specific to the needs of adolescents who were pregnant, but also expanded the approach to include primary prevention in schools.

The teen outreach service was primarily directed at two high schools on the east side of Kauai. Two half-time workers were available to provide information, referral and direct services to teen clients. It was proposed that one outreach worker be male and the other female to strengthen the male component of this sub-project. The added primary prevention effort was seen to be extremely important. The accessibility and visibility of workers on-campus encouraged students to seek advice, contraceptive counseling, and referral.

The two workers identified, contacted, and conducted follow-up on pregnant teens referred by schools, FSSP, HPP and physicians. Working as an FSSP outreach workers within the Wilcox Hospital assured them a level of credibility with hospital staff and pregnant teens seeking prenatal care. The workers provided direct support and follow-up to pregnant girls both in the hospital and in the high schools.

The workers made their availability known to teachers and students through school bulletins, daily school announcements and the school newspapers. They maintained regular office hours, three times a week, at both Kapaa and Kauai high schools. These office hours were used for private and confidential counseling sessions with students. Along with office hours and class presentations, the workers were available to teens through the use of the FSSP 24-hour code-a-phone, and the distribution of their home telephone numbers.

During the pregnancy the workers keep close contacts with the girl's doctor, and encourage proper health practices and awareness of other hospital services. This has been made easier by the development of a weekly adolescent obstetrical clinic. At the time of delivery for teen clients, the hospital staff allows complete freedom for the workers to assist adolescents wherever possible. The workers may act as delivery coach and assist in mother/infant bonding. Later, on home visits with the Public Health Nurse, clients are followed-up and contraceptive information given to prevent a second pregnancy.

Analysis of data showed 22 school presentations contacting 390 students of the two high schools for a seven-month period. Obviously when teachers know there was a resource person available, this service was utilized.

Data on short-term clients indicated the need for someone on campus to privately discuss birth control information. The workers felt that those teens who did come to discuss birth control information appeared isolated with no one else to talk to. There remains a need for students who are contemplating sexual activity to have opportunities to discuss it in a non-threatening environment. There were a total of 50 short-term clients seen privately during office hours. Most teens asked about birth control, however a number came for personal counseling on family, school and relationship problems.

Analysis of the data shows the need for a support person to assist pregnant girls. In a period of seven months, 29 long-term clients or pregnant girls were seen by the workers. Of these 29 pregnant girls, 50 percent were referred from the FSSP assessment worker directly at the hospital and 25 percent came from school referrals. Indications were that having an outreach worker going between the hospital and the schools combined two major sources of referrals for pregnant girls. Generally, information available indicates that the visibility of the workers in the hospital and school increased awareness among the pregnant clients of proper prenatal care and community services available to them.

The teen outreach component of the Family Support Services Project at Wilcox Hospital was unique. It provided direct support to an identified target population and networks between the school and hospital. This networking allows a closer working relationship between two institutions which are important in a pregnant girl's life. The networking provided for the necessary follow-through between the school and hospital to be created which assisted pregnant teens to continue with prenatal care and schooling.

The three and a half years of the KTDP demonstrated that schools and the major hospital on Kauai can form a strong network in support of primary and secondary prevention of adolescent pregnancy on Kauai. The teen outreach service programs successfully developed a network of agencies which cooperatively function in primary and secondary prevention and pregnancy support for adolescents.

Teen parenting and child care lab program (Jan. 1980 to June 1982)

The Parenting and Child Care Lab called "Kids 'N Stuff" was a sub-project proposal submitted by the Waimea High School outreach counselor, with the approval of the school's principal. This sub-project was administered by the KTDP working cooperatively with the Department of Education and Waimea High School.

The outreach counselor noticed that pregnant teens on campus were given some assistance, but that teen parents who lacked a strong family support system were in need of child care services and parenting training. The proposal was to provide an on-campus program that encouraged teen parents to

return to school, reduce absences, and complete their high school education while important child care needs were being met.

The proposal indicated that although some assistance was being given to pregnant teens, a more specialized service was needed. A program and setting on-campus which provided a safe, non-judgmental environment to share concerns would increase pregnant teens' awareness of the importance of prenatal and child development information. In addition, the sub-project met primary prevention objectives by allowing non-pregnant and parenting teens to learn more about parenting and child development.

The Parenting Program located at Waimea High School on Kauai started in January of 1980 with the hiring of a Department of Education certified home economics teacher employed through the Kauai Teen Demonstration Project.

There was no child care lab that first semester. In the two academic years since then, the Parenting class has been offered as a one-year course, five periods a day. Children were brought to the child care lab for three full days each week. The remaining two days each week were spent in lecture, demonstration and discussion. Enrolled students received one elective credit for each period.

The course was designed to assist students to become better parents by providing the whole gamut of responsible family planning, family living, marriage, pregnancy, childbirth and child rearing, with an emphasis on the positive roles of fathers and mothers.

A unique feature of the class was the portion called the Child Care Lab during which infants and toddlers of student parents or other members of the community were present for one or more class periods per day. This arrangement was meant to serve several purposes: (1) to provide a stimulating environment for the infants and toddlers in which their social, emotional, physical, and cognitive growth could be observed and fostered; (2) to provide the students with firsthand "parenting" experience; (3) to allow students who are parents to attend other required courses while their children receive day care, teach, and learn from the members of the Parenting Class; (4) to show teen parents ways of improving their parenting skills and to allow student parents to share their experiences with their peers, and (5) to assist non-parents in making informed choices regarding parenthood. This is the only program of its kind found in a Department of Education setting in the State of Hawaii.

Due to limited space, only ten high school students were enrolled in each of the five periods per day. Infants and toddlers were limited by the Department of Social Services and Housing regulations to a one-to-five ratio for every paid staff member.

Student parents bring their children to school with them and leave them in the Parenting Program on Tuesdays, Wednesdays and Thursdays while they attend regular classes. Most often these teen parents elect to take the Parenting Program also. As designed, student parents as well as non-parents benefited from this program by being able to observe and care for children firsthand as part of their learning experience with children in a supervised setting with a skilled instructor. Students are able to discuss and witness positive parenting skills by the program instructor.

Children who would otherwise not be optimally stimulated at home, especially children of teens, are given opportunities to interact with other children and obtain specialized services free of charge.

Through visitations and guest speakers, teen participants become familiar with the community services available to them.

Many community groups and agencies contributed to the overall development and continued operation of this sub-project. The sub-project has tremendous potential for the entire school system in Hawaii and in changing student attitudes regarding early childbearing.

The number of students steadily increased through enrollment and referral as the program became more widely accepted. In early 1981, a child care assistant was hired so more students and children could participate in the program, and to provide welcomed assistance to the teacher.

The facilities for the class were located in the Home Economics building on the Waimea High School campus and included approximately 770 square feet of floor space. There was a living room used for classroom instruction which doubles as a playroom on lab days; a bedroom used as a nursery; a fully equipped kitchen; a bathroom, and a washroom used as storage. The washroom also serves as an exit to the adjacent outdoor play area which was approximately 500 square feet in size and fenced in for the children's safety.

Donations were provided to the program from various local organizatons and individuals reflecting the acceptance and commitment of the community to this type of program. Donations included guest speakers, volunteer labor, donated materials and loans-without-charges of items such as video recording equipment. The value of in-kind donations increased dramatically during the three years of the program, from 1 percent in 1980 to 31 percent in 1982, providing an average of 22 percent of the annual required revenue.

The Educational Research Institute of Kamehameha Schools was attracted to the concept and approach. In their effort to provide support, KERI has been instrumental in providing the necessary wherewithal for measuring the subprojects impact on enrolled students.

In the spring of 1981, the Kamehameha Educational Research Institute (KERI) was approached by the Kauai Teen Demonstration Project to provide consultation services in an evaluation of the Waimea High School Parenting class. All evaluation data used here were taken from KERI's final evaluation report dated June 1982.

Measures devised by KERI to evaluate the Parenting Class were both formative and summative assessments. Curriculum and instruction, social and attitudinal impacts, community support and student outcomes were the basic components of the evaluaton. An intact class of home economics students, enrolled at the same high school, was employed as a non-equivalent comparison group for the evaluation. The choice of a control group was determined by its availability (willingness of teacher to cooperate), the similarity of course offering (home economics). It was not anticipated that the two groups would appear equal on all variables.

Enrollment was open to all students in grades 9-12, with priority given to expectant parents and those students who were already parents. There were 47 students in the Parenting class and nine children in the Child Care Lab during 1981-82.

Demographic information on 25 students who participated in the evaluation of the class showed: the majority were eleventh and twelfth graders and were of Hawaiian/part-Hawaiian or Caucasian ethnicity. A majority of students were living with natural parents whose incomes are between $10,000–$20,000 annually. No students enrolled had ever been married; only a small number were employed; and three had pregnancy histories, one of whom had an abortion, another, a miscarriage.

In an effort to assess the effectiveness of the instruction and class curriculum upon participants' knowledge of parenting and child growth and development, several measures were employed (these tests are available at Kamehameha Schools KERI Project).

A curriculum survey was used to assess students' knowledge of pregnancy and contraception, labor and delivery, personal changes resulting from the transition to parenthood, and awareness of milestones in child development. Pre-post evaluations of both the control and the treatment groups were undertaken.

A $\underline{t}$ test for the comparison of means was conducted and revealed no significant gains in knowledge for the treatment group as a result of participation in the Parenting class. The control group did not show any gains either. However, it should be noted that the test was constructed using a course syllabus furnished by the instructor of the Parenting class, and that the final list of questions was matched against the questions used in a pre- and post-test designed for use with the textbook assigned in this course, Teenage Pregnancy: A New Beginning by Linda Barr and Catherine Monserrat, 1978.

The general Student Rating Sheet for the Parenting class was a subjective post measure by the students of the perceived value of their participation in the Parenting Class.

The majority of the participants responded favorably, 83 percent of the overall responses were positive.

Classroom and child-care evaluation was a Likert-type scale (strongly agree—strongly disagree) employed as a post evaluation of student impressions of program organization and delivery (e.g., goal-setting, rapport, exams and grading). Overall responses were positive (65 percent), however, students viewed specific items either more or less favorably.

Key concepts receiving high student praise revealed: that the subject of the course was both interesting and informative (82 percent); that grading was consistent and fair (82 percent); and that their (students') knowledge of parenting increased because of experiences with infants and toddlers in the Child Care Lab (87 percent).

Students indicated that "parenting" was a beneficial subject for them to have taken and they believed a similar course offering should be maintained on campus. It seemed obvious that the students were judging the course on dimensions other than the amount of information they acquired about parenting and child development.

It was apparent from these and other subjective reports from the students that the Child Care Lab did indeed increase their awareness of the responsibilities involved in parenthood.

Measurement of social effects upon students' attitudes toward parenting, children and other adult responsibilities (e.g., employment) was undertaken, and the results were significant.

Students in post-treatment surveys indicated a desire for fewer children and at a later age than they earlier reported. Moreover, there was an increase in the desirability to complete school and continue on to higher education.

Prior to the class all participating students (100 percent) felt they wanted to become a parent, whereas only 92 percent of the control group felt similarly. Moreover, on the pre measure, 61 percent of the treatment group (47 percent control) wanted their first child before they were 24 years of age. Forty-five percent of each group thought they would have more than two children.

On the post measure the same proportion of both groups felt they would not have children (8 percent). Sixty percent of the treatment group (69 percent control) further believed they would have their first child after age 24.

The most significant post-tested response was that 72 percent of the treatment group (61 percent control) believed they wanted two or few children.

On the pre measure, 97 percent of the treatment group intended to finish high school, on the post measure, they all felt they would (100 percent), as did the control group on both measures. More participants indicated that they also planned to continue their education after high school on the post measure (80 percent) than the pre (72 percent), an increase that better approximated pre-post (82% and 86%) responses by the control group.

A t test of paired differences using arcsine transformations of pre-post proportions indicated that changes in student attitudes and values as measured on PC-02 were significant ($p = .015$).

Supportive school-community relations are integral to the successful implementation of most innovative curricula, especially with a socio-politically sensitive subject such as "Parenting" where the range of attitudes, values and practices among community members is apt to be great. To assess community endorsement of the Waimea Parenting Class, four perspectives felt to be indicative of support were considered: (19) Faculty/Staff opinion at WHS, (2) Community attitudes, (3) KTDP Advisory Board concerns, and (4) in-kind donations.

The overwhelming majority (86%) of the Faculty/Staff surveyed felt such a class should be provided in a public school. A survey of a small group of respected community leaders showed all to be in favor of the Parenting Class. Advisory Board members interviewed believed the class should continue to be offered to teens. However, many felt that more input was necessary from a variety of disciplines into the development and delivery of curriculum.

From these perspectives it was judged that the Waimea-Kauai communities strongly support the concept of parenting education within the schools.

This is further evident in the fact that the Kauai DOE has agreed to take over the Parenting Program for the 1982-1983 school year because it represents a unique approach to parenting education, a DOE Foundation Program Objective.

## Impact of Kauai Teen Demonstration Project

### Analysis of networking

The primary goal of the Kauai Teen Demonstration Project was to establish and document a community network approach for the reduction of adolescent pregnancy.

The methods used to measure networking included surveys and interviews with adult members of the KTDP network, construction of a network sociogram and analysis of inter-agency cooperation and intra-agency services. A major limitation of this evaluation was the lack of baseline data on 1979 network.

A survey of adult members of the KTDP network (planning and advisory committee members) was conducted in December 1981, in the evaluation phase of the project. The survey collected data on the characteristics of these adults. their attitudes regarding the project, and the impact of the project in their respective agencies.

What did networking mean to adult members who were closely involved in the KTDP? Examples of responses included:

> "Mutual understanding to maximize relationships and utilization of services."

> "A natural exchange of more information and referrals."
>
> "Full use of available agencies for the benefit of the target population."

Members in their definition of networking responded to the different parts of the networking concept. Key terms used were exchange, cooperation, sharing, and relationships. There were indications that networking was believed to involve groups of people, especially agencies, integrating to create a better use of resources to help a target population.

Was KTDP networking successfully implemented? Of the 22 responses, 59 percent believed the networking to be successful. Eighteen percent mentioned a lack of outreach to the general public, including families and teens. Those uncertain totalled 18 percent and one thought it was partially successful. The responses suggested that the KTDP success in networking resulted from greater inter-agency cooperation and utilization.

Analysis of questionnaire responses in the task function showed 86 percent of the members surveyed agreed that their involvement with the KTDP helped them to understand the different agencies on Kauai that impact on teen pregnancy. Indications were that representatives from family planning providers, private social service agencies, and schools were in strong agreement. Eighty-two percent of the respondents believed that the KTDP did fill gaps in services to teens in regards to sexuality and pregnancy. Eighty-six percent of the members believed that the KTDP assisted agencies on Kauai in understanding problems associated with teen pregnancy. Only 65 percent of the members agreed that the KTDP served to coordinate the existing services for teens more effectively. It appeared that members representing schools and family planning providers were essentially in agreement. Private social services and health agencies indicated greater uncertainty, but this may be the result of the kind of coordination that would already exist in a small community.

Thirty-eight percent of the respondents were uncertain whether there had been an increase in teen referrals in their agency affiliations; 27 percent disagreed and only 21 percent agreed. It appeared that family planning providers especially agreed. Approximately 50 percent of the health agency members disagreed that an increase in teen referrals had occurred. Forty-one percent of the surveyed members disagreed and another 35 percent were uncertain that their agency's services, policies, and/or referrals had changed in regards to teen sexuality, pregnancy and parenting since involvement with the KTDP. It appeared that schools and family planning providers agreed more. This would indicate that the identification of a more formal referral system established by KTDP had an effect here. Churches, private social services and health agencies were more uncertain and more government social service agency members disagreed strongly. Twenty-seven percent of the respondents were uncertain that the KTDP assisted the general public in understanding problems associated with teen pregnancy, 41 percent agreed and 32 percent disagreed. It appeared that members affiliated with schools and the Department of Health agreed, while others tended to be uncertain or disagreed.

As part of the evaluation phase, eighteen members of the advisory committee for the KTDP were asked to complete an agency-affiliation sociogram. Members were asked to rank by the size of circle important organizations they come in contact with as part of their work.

Figure 14 includes only the primary organizational contacts that indicated a strong intensity in the pathways between the primary circles. The intensity of the pathways would perhaps show something of the durability of these relationships.

The sociogram illustrates that even in a small closed community, interaction among agencies is complex and varied. Most respondents are involved in networks of relationships that increase geometrically. Members felt that eventually the range of circles would reach into the informal networks of the community through friends and extended family.

The density of primary circles around the KTDP reflects those organizations with close contacts with it. The highlighted lines surrounding the KTDP identifies a more formal community referral system among agencies working in pregnancy prevention and care.

It does appear that increased awareness of adolescent pregnancy among professionals and agencies facilitated more formal and cooperative links between agencies, especially Family Support Services Project, Department of Education, Hawaii Planned Parenthood/Kauai, and the Department of Health. FSSP included in its existing services a teen component which facilitated linkages within the Wilcox Hospital and with the high schools. The Department of Education with

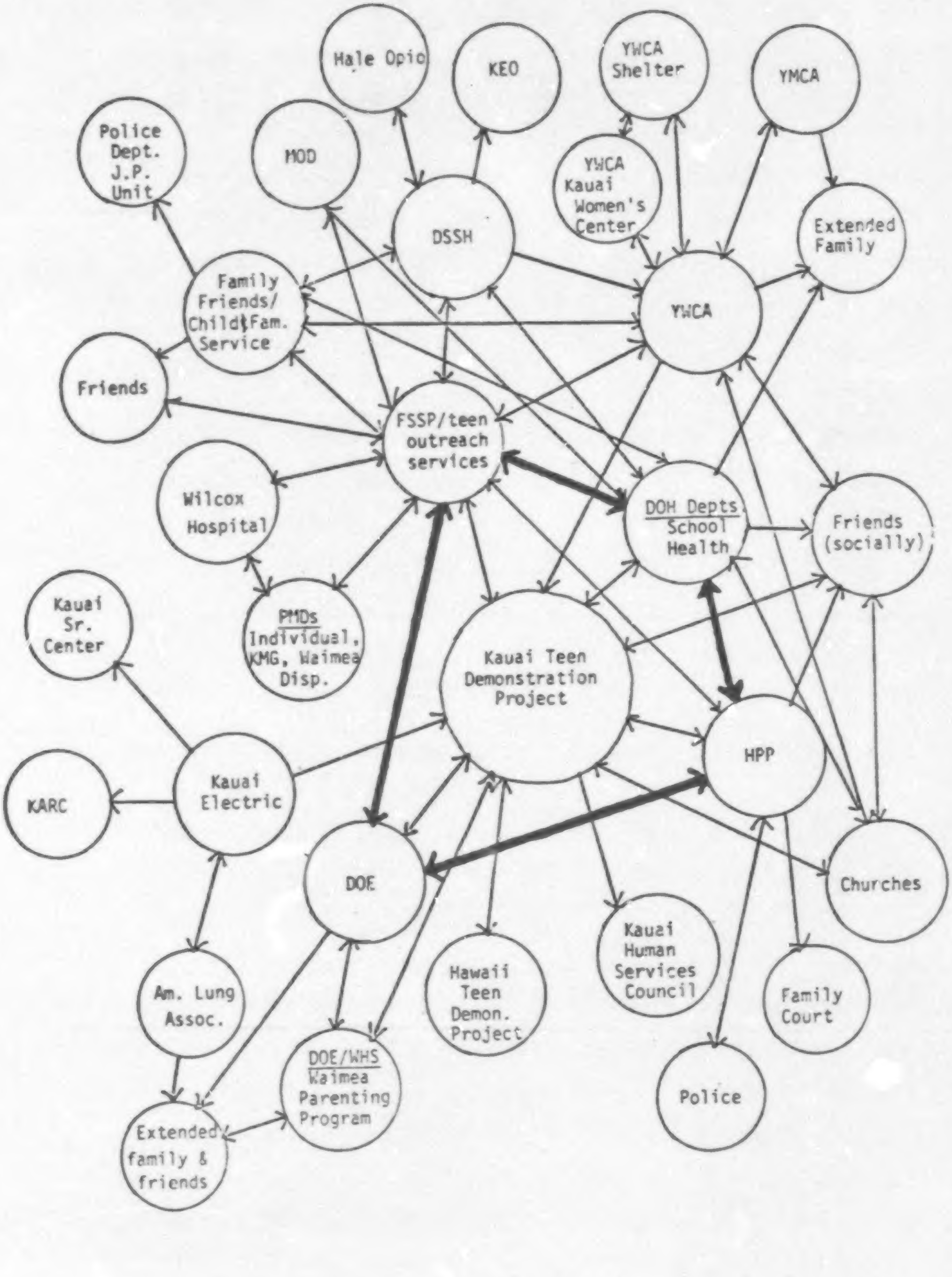

Hale Opio
KEO
YWCA Shelter
YMCA
Police Dept. J.P. Unit
MOD
YWCA Kauai Women's Center
DSSH
Extended Family
Family Friends/ Child&Fam. Service
YWCA
Friends
FSSP/teen outreach services
Wilcox Hospital
DOH Depts. School Health
Friends (socially)
Kauai Sr. Center
PMDs Individual, KMG, Waimea Disp.
Kauai Teen Demonstration Project
HPP
KARC
Kauai Electric
DOE
Churches
Am. Lung Assoc.
Hawaii Teen Demon. Project
Kauai Human Services Council
Family Court
DOE/WHS Waimea Parenting Program
Police
Extended family & friends

Figure 14

Kauai Teen Demonstration Project Networking Sociogram its parenting focus at Waimea High School and allowing for in-school counseling by HPP and FSSP workers linked these groups together in a more coordinated system. The Kauai Chapter of the March of Dimes and the YWCA were facilitated to include more services to teens and provide for continued community education of adolescent pregnancy.

The networking approach by the advisory group could have been more enhanced if it had become a community-based council or association. The KTDP was limited in duration and, once the Federal Grant monies terminated the advisory group would too. For instance, only four members of the advisory group in 1982 indicated an interest to continue as an adolescent pregnancy cadre on Kauai for future group action targeted to adolescents after the termination of the KTDP.

### Statistical Findings

Statistical data were collected and analyzed to provide evidence of project impact on teenage fertility. Fertility rates were calculated for high school catchment areas to compare the three public schools on Kauai and for the county as a whole for comparison with statewide figures.

Numbers of reproductive events were obtained from Hawaii Department of Health, Office of Research and Statistics. Population estimates and ethnic composition used to calculate rates came from the statewide Health Surveillance Program, Department of Health.

Because the numbers of reproductive events to teens were small, tests of statistical significance and age-specific rates were utilized.

Kapaa High School has had consistently higher pregnancy rates than the other schools. In the last several years Kauai High School has faced an increase in teenage pregnancies. Information gathered from school personnel for 1982 indicate a further rise in the numbers. Waimea High School is experiencing a steady decline in teenage pregnancies.

Teenage pregnancy rates for the 15-17 age group in Kauai County were facing a steady decline until 1981. This increase in 1981 correlates with the state teenage pregnancy rate increase as indicated in Table 17. This rise in teenage pregnancy rates is accompanied by a decrease of 19 percent in repeat teenage pregnancy rates. In 1981, therefore, Kauai faced a significant increase in first-time pregnancies. Using Chi$^2$ test of significance it was found that overall there were no significant upward or downward trends in teen pregnancy rates between 1975 and 1981. However, between 1980 and 1981, there was a significant rate increase ($p < 0.05$). For 1981, between Kauai and the rest of the state there was no significant difference. In 1980, on the other hand, there was a significantly lower rate ($p < 0.05$) for Kauai County as compared to the state. Figure 15 shows the teen pregnancy rates.

Statistics indicate that teen pregnancy rate had decreased by 12 percent in 1980 to 27.6 per thousand. This figure was 35 percent lower than the statewide pregnancy rate for the same year. In 1981, pregnancy rates for the 15-17 age group increased by 45 percent, 12 percent over the statewide rate.

This indicates a weakness in primary prevention efforts and a lack of outreach to younger teens (under 15).

Birth rates for 1980 again show significantly lower rates for Kauai over 1979 and for the state in 1980. In 1981, the birth rates became consistent with statewide figures. Abortion ratios for all age groups except the < 15 year olds are increasing. The < 15 year group in 1981 included only one girl.

Table 17 describes three-year averaged reproductive rates for teens. This method was applied to uncover trends in teen pregnancy and pregnancy outcomes. Because the numbers of actual events were small, three years of events were combined to calculate three year rates. The 1975-1977 and 1977-1979 data represent pre-project rates. The 1979-1981 data come from the project implementation phase. Using this technique, no significant change in pregnancy rates is measured. There seems to be, however, a trend toward increasing abortion rates and decreasing birth rates.

Table 17

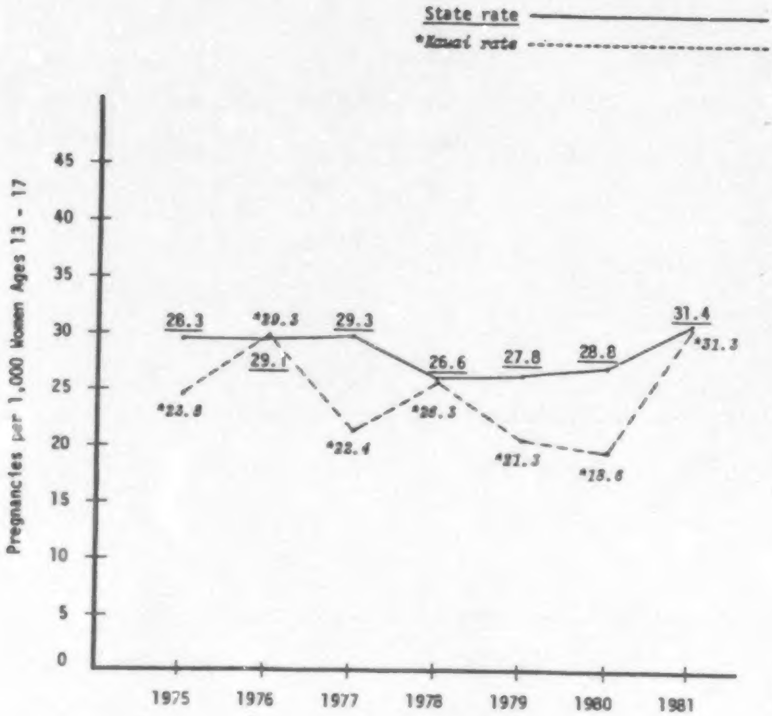
Three-Year-Averaged Reproductive Rates by Type

To Females Under Age 18 on Kauai Federal FY 1975-1981[a]

| | Pregnancy Rates | Fetal Death Rates[b] | Birth Rates |
|---|---|---|---|
| 1975-1977 | 25.2 | 10.5 | 14.7 |
| 1977-1979 | 23.4 | 10.0 | 13.4 |
| 1979-1981 | 23.6 | 11.3 | 12.5 |

[a] Based on data from the Hawaii DOH Research & Statistics Office

[b] Includes elective abortions and standard fetal deaths.



Source of Vital Statistics: Maternal and Child Health Branch, Hawaii State Department of Health, 1981.

Rates based on population estimates from the Health Surveillance Data for each Fiscal Year.

Figure 15

Teenage Pregnancy Rates, Kauai County and Hawaii State (1975-1981)

Statistics in low birth weight infants born to teen mothers show definite improvement during the two project years. These low weight rates are significantly lower for Kauai teens compared to the statewide rates.

## Conclusions

The Kauai Teen Demonstration Project found that a network of agency professionals and concerned individuals could successfully work together to plan, monitor and evaluate a program relating to teenage sexuality and pregnancy.

This network approach developed a formal community and in-school referral system and sensitized professionals to the problems related to adolescent pregnancy. One major reason for this success was the central facilitating role played by the project coordinator.

Project findings indicated a need to identify and involve key agencies and individuals to assure acceptance within Kauai's "closed" community. Among those found to be crucial to project success on Kauai were public educational institutions, social service agencies, family planning clinics and hospitals. Public schools were the focal point for sub-project prevention activities and identification of teens at risk of pregnancy or those already pregnant.

The weakness of the network developed was its lack of involvement by community groups, county government programs, and parents.

In that this approach gave local control over program planning, policies and implementation, the project faced no community opposition during the three years of operation. Further, community members involved in the project redirected project scope to focus on parenting, care of pregnant adolescents and reduction of repeat pregnancies, in addition to the original concern for primary prevention. This redirection was the result of the composition of the planning and advisory groups and their assumption that a large portion of the teen pregnancies were repeat pregnancies. Evaluation findings, however, indicated that repeat pregnancies actually made up a small proportion of teen fertility and were well below the state statistics. Therefore, the potential impact that a more exhaustive primary prevention focus might have had was limited.

Kauai's statistics show no significant downward trend in adolescent pregnancy rates for the three year project period. This was in part due to the limited activities focused on primary prevention, but also the result of targeting primary prevention efforts at teens over age 15. Data indicate that 53 percent of the teens 13-17 who reported being sexually active were already sexually active by age 15. Sixty-two percent of the pregnant girls seen by Family Support Services were aged 16 and under. Further, in 1981, one in ten females under 18 who were sexually active became pregnant. These findings suggest a need for intensified primary prevention activities targeted at younger ages.

The Waimea Parenting and Child Care Lab concept appeared to be a most promising approach to both primary and secondary adolescent pregnancy prevention. It showed strong potential for changing student attitudes regarding early childbearing and realistic life planning.

It was found that in a small, "closed" community combining prevention and care programs was more acceptable and cost-effective. The second family support Service Teen Outreach program provided in-school presentations, counseling, and pregnancy support services reaching a substantial number of teens at risk. This combined approach linked for the first time on Kauai a hospital-based program with the Department of Education in a unique combination of services.

Resource persons capable of presenting information on adolescent development, sexuality and pregnancy were in demand in the local schools. Many teachers felt uncomfortable teaching these subjects, but believed them to be crucial for adolescents.

Data suggested that many pregnant teens and their partners on Kauai appear to have had a number of additional problems including drug and alcohol abuse, history of child abuse, unrealistic expectations for the pregnancy, parent-infant bonding problems, and history of criminal, violent or other inappropriate acts. There was a need to recognize the underlying causes of these problems. Among the factors found to result in teenage pregnancy were poor parent-child communication, family stresses, low self-esteem, peer influence, and peer/partner problems. This conclusion further validates the necessity for parental involvement in prevention programs and more comprehensive family life education.

During the three and a half years, a number of agencies incorporated KTDP objectives into their programs. The Project influenced agencies to shift program attention toward adolescent pregnancy concerns through participation in agency advisory groups and provision of training and technical assistance.

Strong community commitment of the activities and purpose of the KTDP was created. Project activities found to be successful or have potentially successful results are being continued through funds within the Kauai community.

In a relatively short span of time with limited external funds, the networking approach proved successful in utilizing existing community resources to create inter-agency linkages directed toward the prevention of adolescent pregnancies.

## The Kapiolani Teen Intervention Project

One area about which little information was known in the state of Hawaii was on repeat pregnancy to teens. Repeat pregnancies can be potentially much more damaging to the teen and her infant than the first pregnancy because of the short interval between pregnancies. While the young body is stressed with the first pregnancy because of the competition it faces with its own growing needs and that of the fetus, it never has the chance to add needed stores before a second or third pregnancy makes its demands on the body. High prematurity rates and birth defects demonstrate health consequences of an early repeat pregnancy.

National statistics quote high rates of repeat pregnancy for teens within three years of their first experience. Zelnik (1980) reported that repeat pregnancy rates in 1971, prior to the present abortion laws, were 50 percent after two years.* The Guttmacher Institute found that without interventions 17 percent of the teens would experience a repeat pregnancy within twelve months of the first pregnancy outcome.**

Hawaii had only one set of statistics on repeat pregnancies to teens. This was a study by Steinhoff, et al. (1979)*** in Hawaii on hospital abortion patients. The study showed that teens under 18 years who had a hospital abortion had a 13.1 percent repeat rate within one year, 21.4 percent repeat rate within two years and 26.9 percent repeat rate within three years (see Table 18).

Since only pregnancies which ended in abortion in the hospital (it is also possible in the early stages to have this procedure performed in doctors' offices)

---

*Zelnik, M. "Second Pregnancies to Premaritally Pregnant Teenagers," Family Planning Perspectives, 12(2), 1980.

**The Problem that Hasn't Gone Away. New York: The Alan Guttmacher Institute, 1980.

***Steinhoff, P., Smith, R., Palmore, J., Diamond, M, Ching, C. S. "Women Who Obtain Repeat Abortions," Family Planning Perspectives, vol 11 (1), 1979.

Table 18

Repeat Rate of Hospital Abortion Patients
State of Hawaii

| | |
|---|---|
| Repeat within one year | 13.1% |
| Repeat within two years | 21.4% |
| Repeat within three years | 26.9% |

were tabulated, it was unknown whether these findings could be projected to the whole teen population.

## Project Goals and Objectives

The grant funded the hospital-based demonstration project at Kapiolani-Children's Medical Center to investigate how to reduce the incidence of repeat pregnancies to teens 16 and under through non-medical servies of counseling, education, and social services. Specific measurable objectives of this project were:

1.0 To lower the rate of repeat pregnancies to no more than 15 percent in the first year of the project, 25 percent in Year Two and 35 percent in Year Three.

1.1 All program participants will possess sufficient information to prevent conception within three months of entering the program.

1.2 At least 80 percent of the program participants will develop personal resources (self-esteem increase).

Year One of the Program was defined as 3/1/79 - 3/30/80.
Year Two of the Program was defined as 4/1/80 - 3/30/81.
Year Three of the Program was defined as 4/1/81 - 3/30/82.

All repeat pregnancies were counted in the year they were conceived.

The program discarded the idea of a control group to compare their results with as too costly as well as being impossible to find a comparison group. Instead, Program clients would be fully described as to age, ethnicity, amount of involvement in program, marital status, pregnancy history, and schooling so that it would be better understood what qualities these teens had that the conclusions were being based upon. Additionally, clients accepted into the program for each of the three years were divided into year-of-intake cohorts. This allowed the program to compare results and measure changes between the cohorts. We were thus able to incorporate preliminary findings of the program to change the intervention given and improve the results in subsequent cohort outcomes.

## Kapiolani Children's Medical Center: Project Site

The site of the Teen Intervention Program was critical to the success of the project. A central location was deemed essential to accessibility of services for teens with hopes of pulling in clients from all over the island. Teens traditionally have a hard time seeking out services and following up on appointments. By situating the Program in a facility they were already using and were familiar with, this problem was lessened. Kapiolani Hospital proved to be a good location because of its extensive referral system of high risk teen patients and their infants from all over the island as well as links to obstetrical and pediatric care on the outer islands. Teen patients who used the services of the medical center or their outlying clinics were referred to the program as clients.

Kapiolani-Children's Medical Center (KCMC) specializes in Ob-Gyn and pediatric care and serves as the non-military perinatal center for the State of Hawaii. The regional perinatal system serves high risk mothers and infants. As teens are characterized as high risk during pregnancy and delivery, they are often served through the departments of the center at KCMC. Teens and their infants from all over the state are transferred to KCMC for pregnancy, delivery, and neonatal complications through a statewide transport system.

The Neonatal Intensive Care Unit treats low birthweight infants and other neonatal problems. Nine percent of the admissions to this unit are of teen mothers under 18 years of age. This represents a disproportionate amount of infants born to teens statewide for all ages: 3.2 percent of all births in 1980 were to teens under 18 years of age.*

Annually, 6,000 of the state's deliveries occur at KCMC. Of these, 211 are to teens under 18 years of age. This comprises 35 percent of all teen deliveries statewide with the remainder of the deliveries spread out among facilities on all the various islands.

---

*Statistical Report, Department of Health State of Hawaii, 1980.

The Perinatal Special Care unit treats women before they deliver. Women are hospitalized for such complications as premature labor or medical indications such as toxemia of pregnancy, heart disease during pregnancy or other medical problems.

The departments of Ob-Gyn, Pediatrics, and Psychiatry for the School of Medicine are housed at the Medical Center. The medical faculty provides direct services to the hospital and the community, runs a residency training program and conducts research. The Ob-Gyn department gives free use of four offices for the program's use.

Other departments within the hospital include acute treatment wards, out-patient clinics, family planning clinics, pediatrics and Ob-Gyn.

The question was asked whether this type of program is best based in a hospital setting or whether it should be out in the community.

The location at Kapiolani Hospital has been advantageous to the program. First, the program is easily accessible to teens using the Medical Center for their medical care. They can avail themselves of services without having to make additional stops within the community. Since KCMC treats a high percentage of teens this is convenient for them.

Teens often are fearful of hospitals as well as the labor experience. Having the Program hospital based, where teens drop in and have a place of their own, helps decrease this fear and makes them more comfortable within the hospital.

Social services for the hospital are provided to teenage maternity patients through the Teen Intervention Program. The Program has become an integral part of the social services department. Rounds are made daily throughout the hospital by Project social workers on all clients in-house. The Project social workers provide social services and referrals within the community to teenage mothers who have infants in the Neonatal Intensive Care Unit. Education is given on how to care for their infants. Social workers accompany the teens on their visits with the infants and assist with bonding when appropriate. Social workers of the Program help alleviate boredom and depression of the clients who are often isolated and kept totally inactive during their stay at the perinatal special care unit.

Not only were the hospital patients available for referral and follow-up to prevent a repeat pregnancy but the hospital services such as training and education were also utilized to better serve the clients. Easy access to departments of the medical school provided clients with additional resources at no extra cost. Medical verification of problems was always available nearby. Treatment of medical problems was always handled by the hospital clinics or private physicians.

By locating a social services program for teens in a medical facility a coordination of services was accomplished. Communication was established with those responsible for teens medical care so a more comprehensive approach was established rather than delivery of fragmented services. Social and medical information is interrelated and this was shared to help the client. Teen program social workers had access to and charted pertinent information on the clients' medical charts to provide information for the medical team. Teen social workers participated in case conferences involving clients. Reinforcement was given to clients on medical procedures and reminders about medical appointments. Teens' compliance was improved because of these efforts.

One disadvantage of having the Program in Honolulu is that many clients live in areas such as Waianae, Waimanalo or Waialua. Transportation into town is difficult and although the Program pays for bus fare, some clients dislike taking the bus. All of these clients deliver at the hospital, so in that sense it is most centrally located. Unless small satellite programs could be started in all of the districts, this central location proves to function the best.

## Program Components

### Facilities and staff

The Teen Program is located in four offices on the eighth floor of the Medical Center. This floor is the Ob-Gyn floor for the University of Hawaii School of Medicine. Resident and student teaching is done here. University physicians' patient offices and research labs are also on the floor. All resources of this floor are made available to the Teen Program at no cost, including many in-services to project staff. In-services by Teen Program staff are given to Ob-Gyn and Pediatrics residents and students on teenage pregnancy.

Originally, the project staffed one social worker, one nurse-educator and a paraprofessional counselor. As the project evolved and service approaches were refined, a reorganization of staff was conducted. In FY 1981-82, the project staffed a part-time administrator, a social work administrator, a social worker, four teen advocates, and a clerk typist.

The part-time administrator develops, organizes, implements, and evaluates the Teen Intervention Project. The administrator acts as a liaison between the Project, the Medical Center and the Central Support Unit. Toward the end of the Project, the administrator spent much time in seeking non-federal funds, lobbying at the legislature.

The Social Work Administrator is responsible for supervising the social work, educational components and teen advocate program, as well as providing direct counseling services to clients The Social Work Administrator conducts intake and management of Teen Program cases and serves in interdisciplinary diagnostic teams within the hospital.

The social worker is responsible for providing screening, intake and management of assigned cases to include diagnostic and therapeutic services, and represents the Project in the community.

The teen advocate positions are currently held by past program clients. Qualifications for the advocate positions include being at least 16 years of age, with the ability to talk to other teens and the community on issues such as family planning, teen sexuality and pregnancy.

An advocate is defined as a helping friend. This includes being an active listener, providing alternatives and accepting and supporting choices. It also involves being a para-professional leader for leisure group activities.

The Program presently has four part-time, paid advocates. They do follow-up on clients, inviting them to activities, eliciting information on any problems they may be having and giving birth control information. They act as important role models for clients in child care, plus discussing such topics as pregnancy alternatives. They are available in the office for clients to drop in, and to work on activities. The advocates plan and send out the month's calendar of activities and social events with the social work administrator's supervision. They also teach leisure classes in arts and crafts and life skills. Advocates plan and carry out a monthly calendar of activities designed to minimize client isolation and give needed life skills to clients. Advocates are trained individually in job skills as they come on board.

Both social workers with the Program have their own offices on the eighth floor as does the part-time administrator, where clients' confidential charts are kept. The Teen Advocates have a large room where clients drop by, projects are worked on and classes are taught. The advocate room is decorated with one section for infants and toddlers with toys, soft pillows and carpet. The walls are filled with prenatal care, parenting and family planning posters and brochures.

Private physicians' offices are located on the top three floors of the hospital so teens having medical appointments for themselves or their infants can drop by the Program.

A steering committee was formed in 1978 at the onset of the Program to advise staff on services to offer clients, how to operate within the hospital and to facilitate linkages within the community as well as offering expert consultation on teenagers. These members come from Kapiolani-Children's Medical Center staff, the Department of Health, faculty of the John A. Burns School of Medicine, the University of Hawaii School of Public Health, and community professionals with experience in teen programs.

The steering committee continued to meet during the three-year program. Members assisted in giving advice on continued funding for the program; helped with on-going evaluation of services offered and acted as a sounding board and problem solvers for staff.

## Project Service Components

The Teen Demonstration Program is designed to provide non-medical services to teens. Figure 16 shows a diagram of the different components of the program. It is important to note that clients can enter the program at any point of the diagram. They can then progress to the next step or can become inactive. Therefore, ideally a client would come to the program early for decision making around a pregnancy, take classes during the pregnancy if she elected to go through with the pregnancy, enter the hospital for the delivery where she will be followed by staff, and then be followed-up along with her infant by the advocate program. Less than half of the clients go through the whole cycle, however. Some clients, especially abortion patients come in for decision making

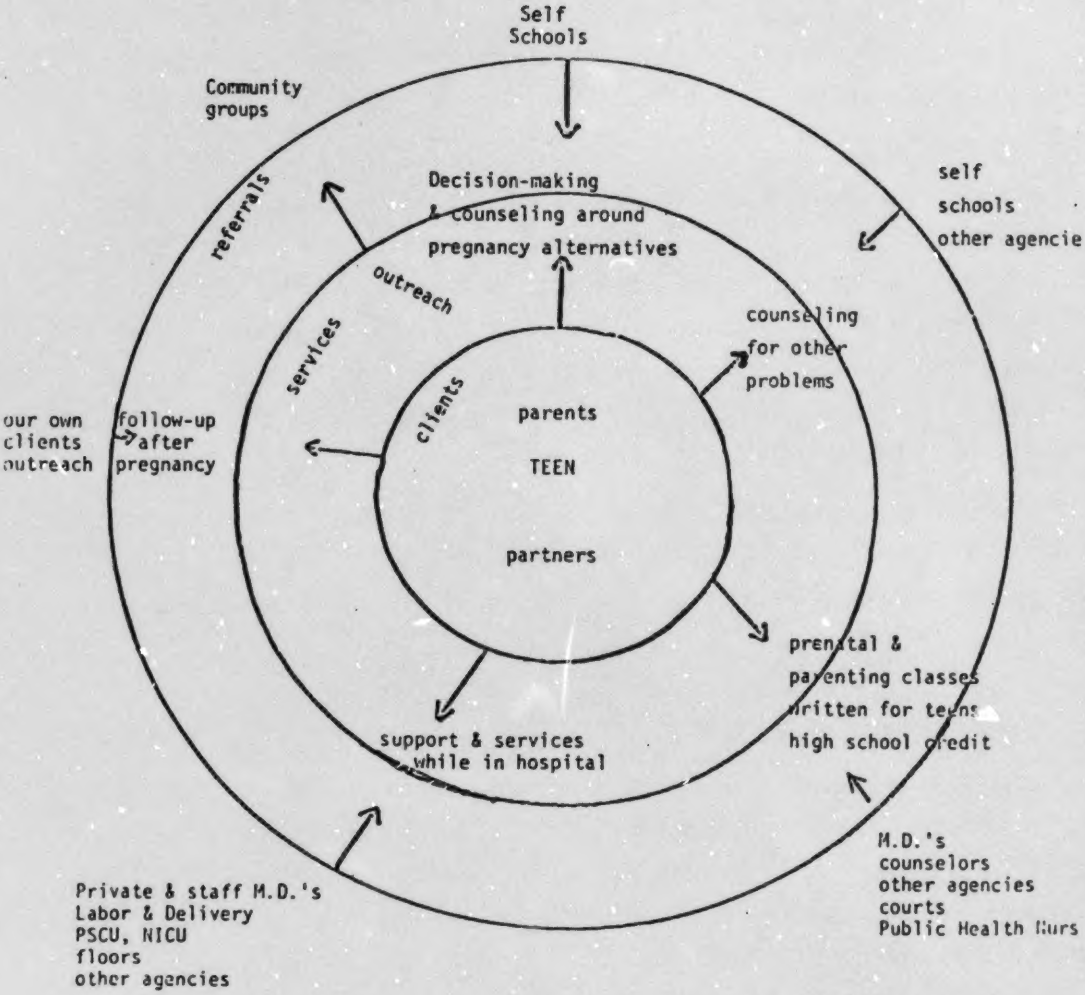

Self
Schools
Community groups
self
schools
other agencie
referrals
Decision-making & counseling around pregnancy alternatives
outreach
services
counseling for other problems
clients
parents
TEEN
partners
our own clients outreach
follow-up after pregnancy
prenatal & parenting classes written for teens high school credit
support & services while in hospital
Private & staff M.D.'s
Labor & Delivery
PSCU, NICU
floors
other agencies
M.D.'s
counselors
other agencies
courts
Public Health Nurs

Figure 16

Teen Intervention Program Services

in which all options are discussed. They choose to become inactive after the abortion and one or two follow-up calls. Other clients are referred by physicians or other agencies for prenatal classes and then are followed up during their hospitalization. Occasionally, they deliver elsewhere so they cannot participate in that portion of the program. Family court will sometimes refer a pregnant teen or one with an infant for long-term counseling for other problems. Every attempt is made to involve each client with as many services of the Program as possible as well as making outside community referrals for her when appropriate.

Counseling:--The Teen Intervention Program has as its most important component, counseling. Both Program social workers offer counseling to the teens, their parents, and their partners, if available. Either long-term or crisis counseling is available. Originally one social worker and one nurse-educator plus a para-professional counselor were utilized. It was found that counseling was the most important services, so a second counselor was hired. Additionally, social work and human development students from the U.H. are utilized when available.

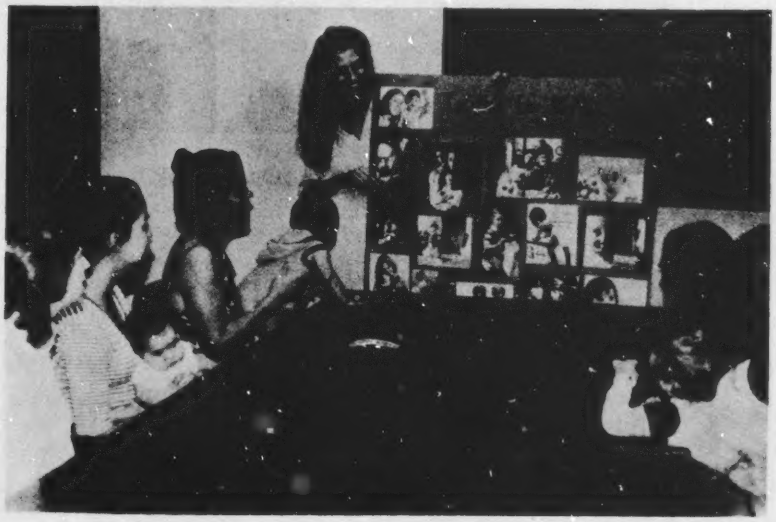
Counseling is offered for decision-making during the pregnancy. All options are discussed non-judgementally, and a decision is reached by the teen, often in consultation with her parents and/or partner. We have found that if the teen does not make her own decision about the outcome of the pregnancy, she is unlikely to abide by the decision. If she is talked into an abortion or adoption, she will likely become pregnant again soon. If she is talked into keeping the baby, she may take little part in caring for the child. It is also good for the girl to hear from her mother if she will get help in caretaking duties. Often all parties have unrealistic expectations of the pregnancy which have not been communicated to each other.

Long-term counseling centers around other problems which the client, her partner and her family are having. Often the pregnancy is caused by these other problems. If no attempt to resolve these problems is made, she may become pregnant again shortly. These problems include family disagreements, school problems, drugs, running away, maladaptive behavior, etc. Other agencies often refer to the program for either long-term counseling or decision-making around the pregnancy. As the program becomes better known in the community, self-referrals have also increased.

Parenting and Prenatal Classes:--These courses are patterned after classes taught at the hospital but with special emphasis for teens. Originally we had the clients going to the classes offered in the hospital, but it was found that they did not relate well to the other couples within the hospital, did not attend classes promptly and faithfully and did not sign up for them as early as required by the hospital.

Not only was better attendance achieved by teaching our own classes, but by offering them later in the day, it was possible to involve some partners for the first time. An attempt is made to involve the putative father of the infant if he is willing to participate. Very good experiences have been achieved with the fathers assisting the clients in labor, bonding with the baby and learning child care. It is also good to have the male partners present when birth control is discussed as they need to support the clients in their choice and use. Physicians and nurses are questioned as to how the girl did in labor and we have been pleased that the clients are better prepared for labor and are less frightened.

An average of about 50 clients per year are taking the classes. Since school credit is offered for these classes, this is a motivating factor for some girls to attend. Taking these classes may motivate some girls to continue their education and ways are explored on how they can complete their education.



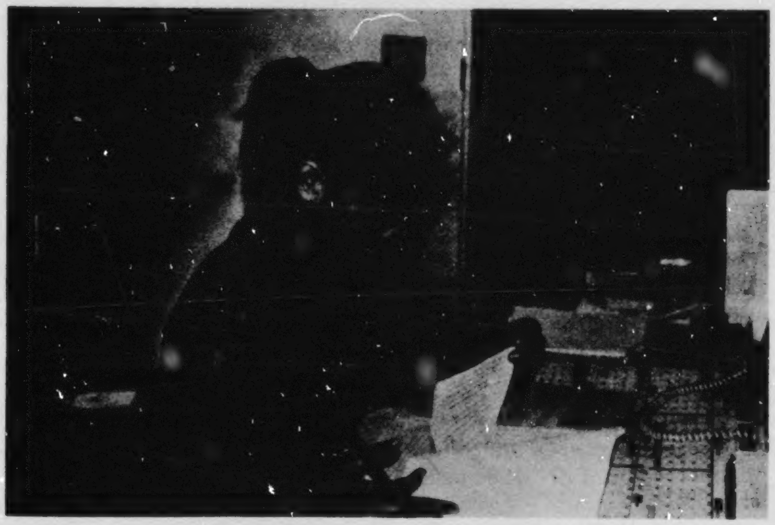
Hospital Support:--The next component of the program is the support and social services given when the client is hospitalized. Visits are made to all clients while they are hospitalized, assisting them with community referrals such as public health nursing or a home visitor program. Clients hospitalized in the Perinatal Special Care unit are assisted since they may be isolated, depressed and bored. Teen mothers who have infants in Neonatal Intensive Care Unit are also assisted.

The obstetrical ward, NICU, perinatal special care unit and pediatric ward staff notify the project social worker of any teens who are eligible for the program. The social worker visits these girls during their hospitalization and provides them with information about the project and brief counseling services.

Follow-up:--After the client has ended her pregnancy or finished counseling, the advocate program assists her through follow-up. Advocates are assigned clients and make monthly telephone calls finding out how she is doing, checking on birth control use, and making referrals back to the social workers for assistance with further problems. Clients receive monthly newsletters describing classes that can be attended and a social event each month. This is a good opportunity for the girls to come in to "talk story" and it allows the staff a chance to ascertain how the client is progressing.

Educational Outreach:--Educational outreach is becoming an increasingly important component of the project. All members of the program, including advocates speak at schools, health fairs, and conferences to educate professionals and the public. Staff speak mostly on teen pregnancy, its problems, incidence and prevention.

The Teen Advocate Program:--The teen advocate program is a unique feature of the Teen Intervention Project. Teens who themselves have experienced a pregnancy act as role models to clients and relate to them on a peer level. Advocates conduct a series of life-skills classes on "cooking on a budget," "making baby food," "playing with baby," "birth control," etc. The advocates help to relieve the girls' isolation and provide a supportive environment. Follow-up is done mostly by advocates through telephone calls and personalized letters on a regular basis. Social events encourage clients to bring their children and partners to the program for movies, parties or picture-taking.



Teen advocate conducting follow-up

Teen advocates act as role models to clients

Advocates relate better initially with some of our alienated clients and help bring them into the Program. Their follow-up calls to clients help establish a valuable link with services to the clients. Originally, young mothers who had been in another program were hired for up to ten hours per week. There were between eight and ten original advocates. All have since left and been replaced by former clients of the Program who now are in control of their lives. An advocate lasts an average of 1-1½ years with the Program.

After much trial and error, it was found that using four advocates who each worked 15-19 hours per week was more productive than having more advocates who worked less hours and earned less money. All of the advocates need the part-time job to support themselves and their families.

The advocates have added a valuable service to the community. All are articulate on experiences they had with being pregnant, how they coped, and the problems they encountered as pregnant teens. They are very willing to "tell it like it is" and not minimize the problems and glorify the pregnancy. They speak to professionals, schools and community groups. They also have been successful in acting as good role models for child-care and parenting by bringing in their infants to the program, interacting with their toddlers and generally answering child-care questions. One advocate brings her infant to work and nurses her which has been an excellent example for clients.

The advocate program uses much of the social work administrator's time for supervision. The administrator assigns clients to each advocate. Monthly they meet to discuss the cases and the interaction which has taken place between client and program. A follow-up of each case is then planned for the next month's contact. New clients are assigned to the advocate throughout the month.

The advocates gain job training experience from working in the program. Often it is their first job and they have to conform to work conditions of being on time, etc. They also gain experience in working with people. Through their work, they often reinforce positive decisions in their own lives. Several of the advocates have gone on to college to pursue a career plan influenced by their work with the project.

Referrals:--During the three years of the Program 405 teens have been accepted as clients. At least 200 additional teens were referred but did not become active clients for a variety of reasons. Many times we were not able to locate the person referred. Other times the girl had no interest in project services. Sometimes we were too far away to give services and she had no transportation to reach the program. Occasionally, the girl was found not to be pregnant.

Referrals to the Program were developed in many ways. All Ob-Gyn physicians on staff at KCMC plus all Family Practice physicians doing Ob have had two letters introducing Program services and updating services. Additionally, one Grand Rounds a year on the Program has been presented to these physicians. Each year in-services are presented to Ob-Gyn and Pediatric residents. Referrals from private physicians continue to be small. House staff prefer more.

Other agencies have been notified of our services through our news releases in the papers, personal and professional relationships already established within the network of agencies, and by meeting members of the Teen Pregnancy and Parenting Coalition. Letters have been sent to some schools for school referrals although counselors are rarely reached. Contacting this group will be attempted this year. Once the Program serves a school, we tend to receive many referrals from them again. As we demonstrate the skill and professional dedication to handle teen cases within the hospital, the departments' referrals grow. These have increased yearly as we gain more credibility. Our many newspaper articles and the T.V. series mentioning our Program have helped the "self"-referrals. Also credibility among the teen clients has improved their word-of-mouth referrals among friends and relatives.

Almost half (48%) of all referrals come from parts of the hospital. This number has increased during the years as the project gained credibility within the hospital. Referrals from the OB Clinic are done early in the pregnancy. It is often the private physician's patient that is picked up later when she is delivering.

Not all teens at KCMC are referred to us for services. If the client has a good family support system or she seems to be mature and capable for her situation, she may not be referred. Generally, those who have little support systems and particularly in need of services are referred.

As the project became better known within the community, self-referrals grew.

These referrals tend to come in earlier for decision-making assistance and social services assistance. They make up 17 percent of our clients.

Other agency referrals within the community make up roughly 16 percent of our clients. These are agencies that do not give services we offer or we coordinate care of their clieng while she is hospitalized.

Physicians make up 10 percent of our referral source and tend to refer patients for the classes. They also make use of our follow-up services, especially if they need assistance in getting a client to attend appointments or follow medical protocols.

School referrals make up 8 percent of the clients. This is a source which seems to be underrepresented and where we could offer more assistance. We have had little success contacting the school counselor and health aides who are aware of pregnancies to tell them of our services.

## Measurements of Project Success

### Methods of evaluation

Social workers gather the initial information orally from clients, fill out the forms and advocates follow up on missing data. The Program Administrator enters all data onto the file cards.

Record checks once a year on births and fetal deaths are made on all clients with the Department of Health so that repeat data will not be lost because the Program has lost contact with the client. Unfortunately, abortions are not recorded by name so this source cannot be used to check abortions.

A hospital record check is also done twice per year and repeat abortions are listed there. Only office abortions are not listed, and we have few clients who would use this method.

Each client has a coded card recording:

1. Birth date
2. Age entering Program
3. Ethnic group
4. Geographic area
5. Marital status
6. Referral source

7. Years of school completed
8. Months active/inactive in Program
9. Pregnancy outcomes and dates
10. Number of Program repeats

Other data can be recovered from client charts in the future if required.

Client satisfaction was evaluated externally with a telephone interview and internally by participants of our prenatal and parenting classes. Family planning clinic use was recorded on participants before involvement and after involvement in the Program. Staff was evaluated on job performance by KCMC through the State Planning Services Data System at the Department of Health.

Data were gathered through forms and client charts to better describe Program clients. Similarities and differences were noted between clients and the general teen population in Hawaii when available. Clients were also compared by cohort, as no comparable general population group could be found.

### Analysis of client data

Client characteristics:--Clients were recorded as to their most prominent ethnic group. The state distribution of ethnic groupings is listed in Table 19 along with client distribution for the Program. No difference was noted in ethnic groupings between three cohorts, so the three year average was noted.

Table 19

Teen Intervention Program 1979-1982
Ethnic Distribution of Clients Compared to the State of Hawaii

| Ethnic Group | Program Clients | State of Hawaii* |
|---|---|---|
| Hawaiian/Part-Hawaiian | 29% | 20% |
| Filipino | 20% | 11% |
| Caucasian | 16% | 26% |
| Japanese | 12% | 25% |
| "Hapa" | 6% | - |
| Chinese | 4% | 5% |
| Samoan | 4% | 1% |
| Unknown | 4% | - |
| Others | 5% | 3% |
| Mixed non-Hawaiian | - | 10% |

*State population figures differ from others in report because this includes category, "mixed non-Hawaiians."

It can be seen that Hawaiians, Filipinos and Samoans are overrepresented in the Program in relation to the State distribution. These three groups make up over half of the Program clients. This does tend to validate state figures which show that these three ethnic groups have much higher pregnancy rates for teens than the state average. Caucasians and Japanese are underrepresented in our Program in relation to their size of group, but they also have smaller teen pregnancy rates statewide. It is felt that Program clients constituted a needy group in the community and probably reflected the ethnic groups in most need of services.

Clients in Cohort 1 had an average age of 16.6 years, while Cohort 2 had an average age of 16.2. Cohort 3 had less extremes in age variation with an average age of 16.4 which was the average age for the three years combined.

Clients moved from active to inactive status when the Program had no contact with them for one quarter. The average number of months which a client stayed active was 7.5 months. After about 6-7 months clients generally become less confined to the home and start to take up their lives again, go back to school, get jobs, get married. It is hoped that the Program helped and facilitated this transition. Often girls will drop in, bring in the baby, or come in for further counseling after they have been inactive for a time.

Twenty-six percent of all clients stayed active for two months or less. These clients generally were those who came in for crisis or abortion counseling and then preferred not to be followed up over a long period or moved and were lost to contact.

Reasons for clients becoming inactive were recorded on each client. Twenty-nine percent of our clients for the three years are presently active. Forty-one percent of the clients who became inactive could not be followed after a time because they moved without leaving a forwarding address, their telephones were disconnected or they disappeared from our contact. We found that teen clients were very mobile, often staying with friends, relatives, and in-laws for only a few weeks at a time. Nineteen percent became inactive when they felt they had progressed sufficiently and no longer needed our services. Seven percent lost interest in the activities and wished to become inactive. For 3 percent of the clients, no chart notation was given as to why they were not continued for follow-up.

Of "first" pregnancies for clients entering the program, 76 percent kept their babies, 20 percent had ITOPs (Intentional Terminations of Pregnancy; abortions) and 4 percent chose adoptions or foster care for the infants. These figures differ from the state average where live birth and abortions are about equal. This is more in line, however, with the ethnic groups found in our program which have a greater tendency to keep their infants rather than have abortions.

For repeat pregnancies, the number of ITOPs increased to 45 percent of the pregnancies while 55 percent had live births. Only one adoption was recorded for a repeat.

Ten clients had a second repeat pregnancy and 60 percent of these ended in abortion while 40 percent resulted in live births.

Twenty-two percent (92) of the Kapiolani Teen Intervention clients had been to a publicly subsidized family planning clinic prior to entrance in the program. In the first year cohort 27 percent had been to clinics and 19 percent of the third year cohort had been to clinics prior to project intake. Almost 70 percent of these girls received birth control, 45 percent were diagnosed pregnant. There was an overall increase for contraceptive services in contrast to pregnancy testing services by 29 percent after project intake. Almost all clients (94%) who attended a publicly subsidized clinic after project intake received birth control. Relatively few went for pregnancy testing (20%) or were diagnosed pregnant (27%) after project intake.

It appears from the data that the project had an impact on getting teens to publicly subsidized family planning clinics for contraception services. It is interesting to note that in the 1979-80 period more clients had attended public clinics before project intake than the 1981-1982 project period. It is not known whether more teens are using private physicians/clinics or whether this reflects an expanded project referral base.

Repeat pregnancies after project intervention:--So that cohorts could be compared and clients who had completed the whole three years in the program could be identified, clients were defined by year-of-intake cohorts. Repeat pregnancies were then categorized by number of months since initial project intervention: 12 months, 24 months, 36 months. Only one cohort completed 36 months since project intake, however this method of data analysis allows us to compare project years. Table 20 indicates the numers and percentages of repeat pregnancies to client cohorts by years since initial project intervention.

Table 20

Teen Intervention Program 1979-1982
Repeat Pregnancies by Year Entered Program Cohort

| | Cohort One | Cohort Two | Cohort Three |
|---|---|---|---|
| | 146 clients<br>51 repeat preg. | 109 clients<br>23 repeat preg. | 150 clients<br>9 repeat preg. |
| 1st Year | 18 repeats - 12% | 10 repeats - 9% | 9 repeats - 6% |
| 2nd Year | 24+18=42 repeats - 29% | 10+13=23 repeats - 21% | |
| 3rd Year | 9+42=51 repeats - 35% | | |
| | 51 | 23 | 9 |

When the first year of each cohort is compared, one can see that this number has met the goal and has been reduced for each subsequent cohort. This may be due to the fact that clients who were identified as high risk for repeats during the first six months after their "first" pregnancy were given more intense intervention of counseling and follow-up to try to reduce the repeat rate. The two cohorts that have two years in the program also showed a drop from Cohort One to Two. Cohort One had a higher repeat rate of 29 percent versus 25 percent which was the stated goal. Since these goals were arbitrarily arrived at, it was not so important to go over the goal as it was to be able to reduce this rate the second year. Cohort One which had three years in the program showed a repeat rate of 35 percent after three years which met the overall goal. After one year since project intake 12 percent of year one cohort had a repeat, only 6 percent of Cohort Three had a repeat.

Perhaps as important as reducing the rates of repeat pregnancy was identifying criteria that might lead to the repeat pregnancy. In the first six months it seemed that if the "first" pregnancy ended in what the client felt was a loss, their chance for a repeat pregnancy was great. Table 21 compares repeat pregnancies for clients feeling a "loss" in their first pregnancy. "Loss" is defined as an outcome which results in negative emotional response by the mother (i.e., miscarriage, infant with a birth defect, an unwanted abortion, an unresolved adoption). The table shows that by 27 months there were equal numbers of repeats to those experiencing a loss and a healthy outcome (columns c and e). However, there is a wide disparity of repeat preganncies occurring during the first 9 months, particularly the 0-3 and 4-6 month intervals. Columns d and f present the cumulative percentage of repeat pregnancies for each type of outcome. The clients with "loss" outcomes experience repeat pregnancies more frequently in the early postpartum months. This suggests that they may be attempting to replace the "loss."

These findings influenced the approach in which services were provided. Counseling during the early months after the first pregnancy outcome were intensified and geared to resolving feelings of "loss." Statewise statistics show that repeat pregnancies were reduced from 37 percent of all teen pregnancies in 1980 to only 22 percent in 1981. Since the Kapiolani program had served a good proportion of the teens continuing their pregnancies, we believe that this program has had an impact on these statewide figures.

Table 21. Teen Intervention Program 1979-1982--Program Repeat Pregnancies by Month After First Pregnancy Outcome and Type of Outcome.

| # of months since first pregnancy | Total frequency (a) | Cumulative % (b) | First Pregnancy Outcome Loss | | First Pregnancy Outcome Healthy | |
|---|---|---|---|---|---|---|
| | | | Cumulative frequency (c) | Cumulative % (d) | Cumulative frequency (e) | Cumulative % (f) |
| 0-3 | 21 | 21% | 14 | 29% | 7 | 14% |
| 4-6 | 23 | 45% | 28 | 57% | 26 | 33% |
| 7-9 | 18 | 64% | 36 | 73% | 26 | 54% |
| 10-12 | 12 | 76% | 41 | 83% | 33 | 69% |
| 13-15 | 12 | 89% | 44 | 89% | 42 | 87% |
| 16-18 | 5 | 94% | 47 | 95% | 44 | 91% |
| 19-21 | 3 | 97% | 48 | 98% | 46 | 95% |
| 22-24 | 1 | 98% | 48 | 98% | 47 | 97% |
| 25-27 | 2 | 100% | 49 | 200% | 48 | 100% |
| TOTAL | 97 | 100% | 49 | 100% | 48 | 100% |

Information to prevent conception:--Clients are checked to see if they have been given birth control information after their pregnancy and then are followed to see if they are using it. This is necessary because many teens stop using the method they start with. They may feel that it has unpleasant side-effects or their partner may discourage them from using it. Often when they break up with one partner they will stop the pill and then not start it with the new partner. There is a place in the chart to note these re-checks. Additionally, the program includes birth control counseling in both the prenatal and parenting classes as well as training all staff in this area. It is felt that lack of knowledge is not the reason for our client repeats. Many simply refuse to use any form.

Development of personal resources:--No records could be found to ascertain accurately gains in self-esteem. The Hudson Index of Self-Esteem was used, but it could not always be administered before intervention took place and then again within six months to measure change. Often it was difficult to get the girl in again for the re-test. Our clients had such a variety of problems and came to the program at different stages during their pregnancies that it was hard to record similarities. It was felt that if the girl continued her schooling or made positive future plans, cared responsibly for her infant and became responsible for her own sexuality through use of birth control then she possibly had gain in self-esteem. These criteria were not set up until the last year and 80 percent of Cohort Three made gains.

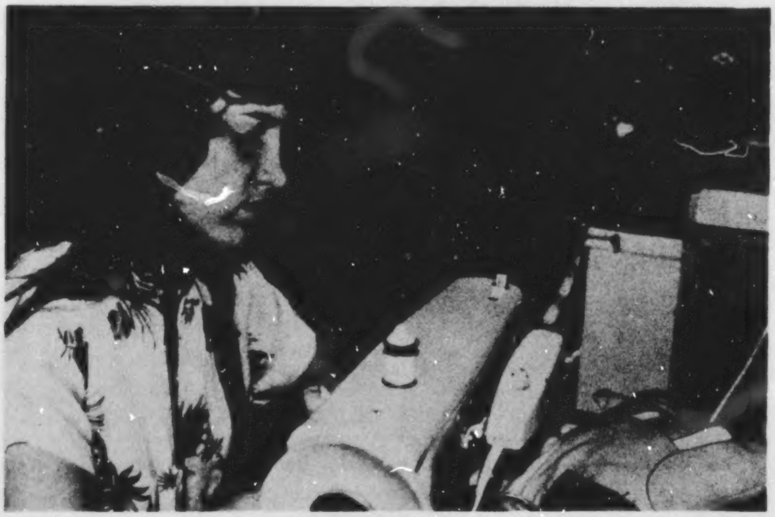
It is felt that there should be better methods to ascertain gains in self-esteem if this is to be measured.

## Project Services Evaluation Findings

The hospital social work department assists in semi-annual performance evaluation of Program social workers and all evaluations have been excellent. Because the amount of referrals from these other professionals has steadily increased and because all performance evaluations on staff have been excellent we are confident that our counseling has been of the highest quality.

Parenting and prenatal classes are evaluated in two ways. First, all participants fill out an evaluation at the end of the course. This allows participants to evaluate methods of teaching and course content. Suggestions for improvements are made. The evaluations have been good on both course content and methods of teaching. Additionally, the class instructor makes an effort, if possible to speak on labor and delivery and talk with the client's physician to ask how she did during labor. Many of our clients were praised on their knowledge and performance during delivery.

An external evaluation of client satisfaction was conducted. A sample of 91 clients was selected for the survey. No clients who requested special confidentiality considerations were included. The survey was conducted over the telephone since clients were from various areas of the island often with poor transportation availability and as teens in general have a difficult time keeping appointments. Of the 91 clients called, 38 (42%) no longer lived at the number listed in their records, in 17 cases (19%) no one answered the phone after two separate attempts to call, and 15 clients (16%) stated they had never attended the program or received services but had been approached by a project social worker while in the hospital's postpartum ward. Twenty-one clients (23%) completed the interview.



The questionnaire was composed of 38 open-ended questions relating to program use, program satisfaction and project impact on behavior and attitudes. Six of the respndents were from the first project year cohort, five from the second, and ten from the third cohort. Present age of respondents ranged from 16 to 21.

Clients were asked what they felt they learned from the project. Parenting was the most agreed upon answer in seven responses (33%). Three (14%) stated they learned a great deal about themselves. Several clients indicated they learned patience, learned to deal with depression and suicidal tendencies, learned about birth control, learned about prenatal care, labor and delivery, responsibility, and arts and crafts.

Six respondents (29%) felt the program helped them to be more self-confident and improved their self-esteem. The program helped four clients (19%) by being supportive and reducing boredom or isolation.

Ten respondents (48%) believed the prenatal and parenting classes to be the most helpful service, while 38 percent appreciated the counseling services the most.

The two major reasons respondents did not participate more often in the project were transportation problems (29%) and they were too busy (29%).

All respondents liked the project staff, class topics, the other participants, the hospital setting and the social events. A number of clients did not like the project location because it was too far and two wanted later hours for classes. Seven of the respondents liked receiving telephone calls and letters from the program, one disliked it and three had never been contacted by the project.

Project staff helped clients by assisting in decision making, providing support and encouragement, by comforting, improving self-esteem, straightening

out confusion, relieving tension, and talking about feelings. Responses to the question of satisfaction with this help were all positive.

Respondents stated that staff helped them to be a better parent by instilling important feelings of encouragement, positive thinking, and patience as well as providing information and advice on technical skills for child care.

Overall, the project helped clients develop personal qualities (i.e., patience, self-confidence, responsibility, etc.) and skills (nutrition, childcare, budgeting, prenatal care, etc.) that prepared them for more successful and less stressful pregnancies, childbearing and parenting.

The hospital setting for this project seemed most appropriate for this type of project. Clients found it particularly convenient during the pregnancy when they had to visit the hospital for prenatal care. Various sectors of the hospital were able to call the project for assistance with pregnant or postpartum teens in crisis or in need of assistance. However, the geographical location of the hospital in Honolulu made it difficult for those from areas outside the urban district to participate. It is suggested that arrangements be made to have program hours in the rural areas of Oahu at least once every two weeks at a facility that would donate space for counseling and classes.

For pregnant teens in particular, the project offered an opportunity for girls to get together with others in similar circumstances. It reduced isolation common to pregnant and parenting teens and encouraged creativity. Information in the classes and leisure activities were developed specifically for adolescents with limited incomes and a variety of family situations.

## Cost Effectiveness of Program

Savings to the community by the Teen Intervention Program can be estimated by figuring what the cost of repeat pregnancies would be without the Program functioning. The Teen Program will serve 300 clients in one year. Without this program, 30 percent or 90 teens will experience a repeat pregnancy. With this program functioning only 18 percent or 54 will experience a repeat pregnancy. Therefore, 36 teen repeat pregnancies can be averted in one year.

Because teen pregnancies, and in particular repeat pregnancies, are expensive in terms of public assistance and medical expenses, this program will result in substantial savings to the State.

To estimate savings, we have calculated the number of teen repeat pregnancies to be averted that would have resulted in abortions, births, and medical complications. Of the 36 repeat pregnancies that will be averted, 30 percent would have ended in abortion and 70 percent would have resulted in a birth. Seventy-eight percent of the teens who have an abortion will require medicaid, 78 percent of the teens who continue their pregnancies will require medicaid for prenatal care and delivery. Twenty percent of the teen repeat pregnancies will result in delivery complications and 15 percent will result in a newborn in need of the NICU.

Table 22

Estimated Savings to State of Hawaii
Result of Repeat Pregnancies Averted Through
Kapiolani Teen Intervention Program Services

Based on 36 pregnancies to be averted in one year

| Percent which would require services | Numbers Averted | Medical Intervention | Unit Cost | Total Estimated Cost |
|---|---|---|---|---|
| 25% | 9 | Abortion (Medicaid) | $200-$800 | $1800-$7200 |
| 78% | 28 | Welfare (family with one child) | $4608/year | $129,024.00 |
| 56% | 20 | Prenatal and delivery care (Medicaid) | $1500 | $ 30,000.00 |
| 14% | 5 | Delivery complication (C-section/PSCU) | $2700-$17,150 | $13,500-$86,250 |
| 11% | 4 | NICU ($900/day) | $27,000 | $180,000.00 |
| TOTAL SAVINGS PROJECTED | | | | $282,324-<br>360,474. |

It can be seen that with the modest outlay for the program costs, the potential savings to the State of Hawaii can be great. This has proven to be a low budget program with the potential for saving public money. The question arises whether the State can afford not to fund such a program.

## Implications of the Program

The Teen Intervention Program has demonstrated by the increased referrals to the present number of 30 per month that there is a need for this service in the community. Clients referring their friends point up the confidence we are gaining among teens. Other agencies and professionals referring clients to us speaks to our credibility with other professionals.

Through trial and error it has been found that two social workers, working with four to six para-professional teen advocates provide staff best able to meet the needs of teens in the Program. Expanding staff to include a nurse and other social workers would be necessary if many more clients are to be served.

Kapiolani Children's Medical Center has been found to offer accessible and acceptable services to the clients. It provides clients for the Program and back-up for the staff.

Program activities of classes, counseling and follow-up have been instrumental in reducing the rates of repeat pregnancies to teens. By identifying some criteria for what makes a client high risk for a repeat pregnancy, it is possible to lower expected repeat rates. It was found that if clients perceived their first pregnancy outcome a "loss" they were at higher risk for a repeat pregnancy within the first six months. This seems to imply that the clients wanted a baby as the outcome of the pregnancy. Clients were much more likely to choose abortion if they already had a baby.

The amount of savings to the community in less welfare costs, less medical expenses to teen infants and their moms, and less damaged lives which the averted pregnancies were able to accomplish prove that the Program is beneficial to the community. Averting teen repeat pregnancies saves money.

Lack of education does not seem to be the main reason for repeat pregnancies. Reinforcement of birth control use, initiation of future goals, and re-education in family size and spacing seem to be valuable information to offer. It is felt that The Teen Intervention Program at Kapiolani-Chindren's Medical Center has effectively demonstrated one method of reducing repeat pregnancies among teen clients.

## Family Life Education and Counseling Demonstration Project

### Project Background

#### Goals and objectives

Teen pregnancies have always been and continue to be a great source of concern to Hawaii school administrators and school staff who are aware of the well-documented hazards of teenage pregnancy. The problem has also been recognized by members of the Hawaii State Board of Education. The Governor's Task Force on Selected Growth Management made the recommendation that administrative action be taken to "promote individual and community awareness and knowledge of population problems and fertility regulation and birth control methods through improved sex education, family life education in schools, kindergarten through 12th grades."

The Department of Health, through the Office of Family Planning, Family Health Services Division, approached the Department of Education (DOE), State of Hawaii in late 1978 concerning the educational curriculum/counseling component and its proposed design. Through the cooperative offices of the central administration of the Hawaii State DOE (in Hawaii, the school system is administered on a statewide basis) and the Department of Health, the Windward Oahu District (after volunteering) was selected in March 1979 to become the site of the Family Life Education (FLE) and Counseling Teen Demonstration Project. With the complete support and cooperation of the District Superintendent (Kengo Takata) and the District Health Curriculum Specialist (Annette Murayama), the project moved very rapidly.

The project had three staff positions. The first staff member selected was the project coordinator, Educational Specialist, who during most of Phase I was Gary Yates. His initial work on the project contributed greatly to the project's eventual success. However, after three months, he left for another position on the west coast and he was replaced by George Fellez, Jr., who continued throughout the project as coordinator. The other two staff members were a full-time secretary and a student assistant who during the first year of the project gathered information, various types of curricula, activities and teaching strategies that made up the first draft of the K-12 FLE Supplement.

The overall goals of the FLE Demonstration Project, as set by the original proposal, were:

1. To reduce by 25 percent in three years the unintended teen pregnancies in the Windward Oahu District, DOE.
2. To support and strengthen the FLE unit K-12, as well as improve the counseling services in the pilot testing Windward Oahu District, DOE.

The project's three-year program was designed to accomplish the following objectives:

a) To more clearly define unintended and intended teen pregnancy.

b) To determine the extent of the situation, as well as the factors leading to an unintended pregnancy in the Windward District.

c) To review and revise family life curricular areas K-12, as well as pilot test the project's recommended FLE Supplement K-12 in selected district schools.

d) The revised materials will

    1. enhance self-concept as well as increase efficient and effective decision-making, problem-solving and communication skills;
    2. overcome resistance of males and females to using contraceptives;
    3. increase responsibility of males as well as females in preventing conception;
    4. provide an opportunity to experience the importance of making responsible choices aimed at reducing the rate of unintended teen pregnancies;
    5. clarify attitudes, values, goals and behavior pertaining to human sexuality as they affect self and others, so that unintended teen pregnancies might be prevented.

e) To identify counseling services needed to reduce unintended pregnancies, as well as create a record keep method to acquire a more accurate number of teen pregnancies in the Windward schools.

f) To identify ways parents, students and community agencies can be involved as resources to the project so that they feel a sense of ownership and participation.

g) To conduct orientation and training activities to increase the competencies of administrators, teachers, counselors, students, parents and others to communicate more effectively about the needs of people which influence self-concept development, goal setting in life and other factors influencing sexual activity and unintended pregnancies.

h) To review, revise and conduct the in-service education training for administrators, teachers, counselors and students in the area of family life education to reduce unintended teen pregnancies.

i) To validate or take formative steps to validate revised curriculum and educational approaches as well as counseling services identified and implemented in Phases II, III and IV of the project.

1. To work with the Windward District Health Specialist (Annette Murayama), in coordination with the State Health Educational Specialist, in determining the feasibility of using the tested Project's FLE Supplement Lessons K-12 in a statewide revised Health Guide to be pilot tested in selected district schools in 1982-83.

## Need for Family Life Education in Hawaii

When the family life education component of the Title X Hawaii Demonstration Project was approved, the DOE in the State of Hawaii had just begun implementing the document "Student Performance Expectations of the Foundation Program Objectives" (Sept. 1978).

In the mid-70s, the Hawaii DOE decided that basic to the improvement of curriculum and instruction is the need for clear and realistic expectations of students which provide direction focus for classroom instruction. In response to this need the performance expectations for the eight Foundation Program Objectives were developed by program specialists in the Office of Instructional Services.

Foundation Program Objectives (FPO) Established by the Hawaii State, DOE are as follows:

1. Develop basic skills for learning and effective communication with others.
2. Develop positive self-concept.
3. Develop decision-making and problem-solving skills.
4. Develop independence in learning.
5. Develop physical and emotional health.
6. Recognize and pursue career development as an integral part of personal growth and development.

7. Develop a continually growing philosophy that reflects responsibility to self as well as to others.

8. Develop creative potential and aesthetic sensitivity.

For each of these objectives is a list of student performance expectations that are relevant to individual grade levels Kindergarten through 12th grade, in all academic areas. For example, in health, a number of student performance expectations required of third graders related to family life education. Students completing the third grade are expected to be able to:

1. Identify how offspring resemble their parents.
2. Explain that all living things come from other living things.
3. Identify ways in which one grows over a given period of time.
4. Identify different emotions and ways they are shown.

The student performance expectations (SPE) for the FPO as well as related SPE in the Health Education unit, demonstrate Hawaii State Department of Education's commitment to the establishment of a comprehensive family life education unit K-12.

The Hawaii State DOE desired but had done little in improving the area of family life. Lack of time, personnel and funding led the DOE to support the FLE component.

Prior to the project, the K-12 Health Guide had only general guidelines related to family life education and no actual FLE materials and hands-on activities for classroom use. For example, in the original 7-12 Health Guide, the section "Life Cycles" suggests topics and books that might be used but no actual classroom materials were given. Also the K-6 Health Guide prior to the project, dealt with family topics in only two sections—"Life Continues" (4th Grade) and "Growth and Development" which dealt with the different physiological systems including reproduction.

The purpose of the Revision of Family Life Education Curricular Areas was to provide administrators, teachers and students with an aid and resource for implementing a more purposeful family life education program (K-12), which contributes to the achievement of the first seven Foundation Program Objectives established by the Department of Education, State of Hawaii. Both the FPO and specific SPE developed by the DOE categorize Hawaii as one of the few states requiring family life education in the public school system.

In addition to the educational rationale for the FLE component of the demonstration project, the overall project purpose was to demonstrate how to reduce adolescent fertility by improving family life education in the schools.

This was to be accomplished by providing factual information and personal skill development (decision making, problem-solving) in a number of areas related to family life, not only reproduction/contraception.

## Project Setting

The District Health Specialist (Annette Murayama) with the support of the District Superintendent volunteered the Windward Oahu School District to demonstrate the family life education project.

The Windward Oahu District DOE, which is situated on the northwest coast of the island of Oahu includes 30 public schools serving between 9,000 and 10,000 students. There are 22 elementary, 4 intermediate and 4 high schools that enroll students representing many cultures and nationalities. Several districts represent people of particular nationalities and cultural backgrounds. For example, in the easternmost section of Windward Oahu District called Waimanalo, there is a large Hawaiian population represnting one of the lowest economic strata on the island of Oahu. Similarly, in the westernmost part of the Windward area, called Laie/ Kahuku, we have large Samoan and Hawaiian Mormon communities with lower economic base than most of the Windward District. Kailua, Kaneohe and Lanikai, in the central area contain a large Caucasian population from a mid- and upper-class economic bracket. Another significant group is the large military population stationed at Kaneohe Marine Air Station and residing in surrounding areas. The Windward Oahu District also has strong religious community, divided into various Christian groups throughout the whole Windward area including the Church of the Latter Day Saints (Mormons) particularly located in the Laie and Kahuku areas and a small but very active community of Jehovah's Witnesses throughout the district. It is important to realize all this diversity occurs in a 35 to 40 mile coastal area separated from urban Honolulu by the Koolau Mountain range.

For a successful project, it was recognized that the social, economic and religious characteristics of this community must be addressed.

Prior to the project, statistics on the number of pregnancies occurring to Windward District School students were inconsistent and incomplete. No clear records were kept on student pregnancies by school counselors or administrators. Department of Education policy permitted pregnant students to transfer to any alternative or regular school or to receive home tutorial so that the number of pregnant girls attending Windard alternative schools did not necesssarily relate to the incidence of pregnancies. Table 23 presents the Department of Health's statistics on teenage pregnancy in the Windward District. Although these data are available through the Department of Health, school counselors, teachers and administrators do not request these statistics routinely.

Table 23

Pregnancies to Girls, 13-17 Windward Oahu District [a]
(Fed. F.Y. 1976-1981)

| Year | Population Female 13-17[b] | No. of Pregnancies | Pregnancy Rate Per 1000 Females 13-17 |
|---|---|---|---|
| 1976 | 7303 | 152 | 20.8 |
| 1977 | 5740 | 140 | 24.4 |
| 1978 | 6039 | 91 | 15.1 |
| 1979 | 5515 | 107 | 19.4 |
| 1980[d] | 6258 | 87 | 13.9 |
| 1981 | 6258[e] | 81 | 12.9 |

[a] Windward District is defined as Census Tracts 101-113

[b] Population estimates from DOH Health Surveillance Survey.

[c] Pregnancy numbers for Census Tracts 101-113 from DOH, Research and Statistics Office.

[d] The number of pregnancies are questionable after 1980, as the abortion reporting system changed. [e] Used the 1980 population estimate as the 1981 health surveilliance estimate was not yet available.

Because information gathering tools to enumerage the incidence of student pregnancies in schools were unreliable and often lacking, the first step taken in the project was to institute the use of a "Confidentiality Form" in each Windward District School. This form assists school personnel in keeping accurate records on pregnancies occurring to students.

The Windward Oahu District has two alternative schools for pregnant and postpartum teenagers. One is located centrally at Kaneohe Elementary School and the other is located in the western end of the Windward District at Kahuku High School. The teens who attend are pregnant and newly postpartum. Once the child reaches an age when he/she can be taken care of by a relative or a day care center, the mother returns to school. These two schools have regular intermediate and high school classes where the girls can receive DOE credit with special lessons emphasizing pregnancy and child care. Since the project began in 1979, 85 to 90 teens have attended these two schools each school year. One conclusion that has been drawn from data and information gathered at these alternative schools in the last three years is that students attending are from younger grade levels (e.g., 1979-80, 45 of 76 [59%] referred were in the 11th and 12th grades whereas in 1981-82 only 49% of the teens referred were in the 11th and 12th grades). Of the teens who have attended the alternative schools in the last three years, all have kept their babies.

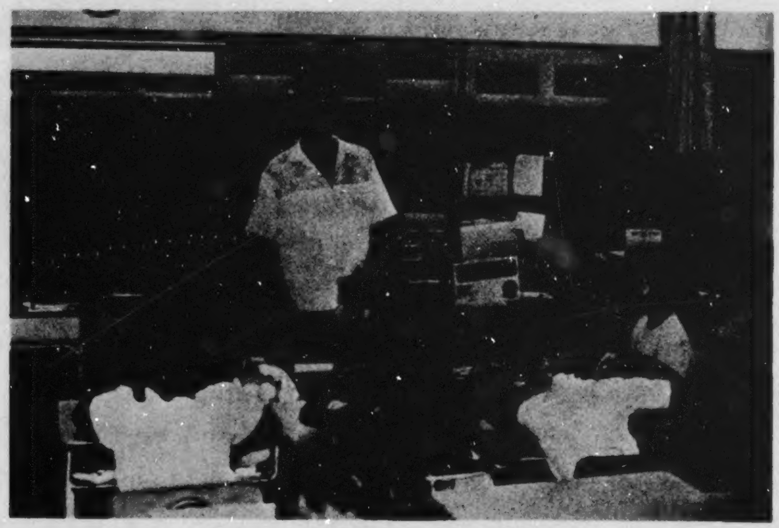
## Needs Assessment

From May 1979 through June 1980 extensive needs assessment activities were conducted to determine the extent of the teenage pregnancy problem and to identify factors leading to unintended pregnancies in the Project district.

### Assessment Activities

A Family Life Education Survey (FLE) was given to 839 high school, intermediate and pregnant students in the Windward District during the month of May, 1979. The purpose of the survey was to identify knowledge, attitudes and practice in human sexuality, with a specific focus on adolescence, within the sample population. This survey creates the possibility of comparisons among high school students, intermediate students and pregnant students responses. Nine questions pertaining to knowledge of contraceptive measures were included to indicate variance among grades and schools.

The Nowicki-Strickland Locus of Control Scale is a written measure consisting of 40 questions that are answered yes or no by placing a mark to the right of the question. This survey assesses belief in external/internal control of an individual who perceives certain reinforcement situations or events as a result of luck, chance, fate, as under the control of powerful others or as unpredictable (external control) or who perceives that the event is contingent upon his own behavior or characteristics (internal control). In the Windward District, 816 high school, intermediate and pregnant students took part in the Locus of Control Scale.



The Barksdale Self-Esteem Evaluation #69 is a measure of the way one thinks, feels and acts about one's self, based upon one's sense of self-worth and importance. Self-esteem scores have a possible range of 0 - 100. According to the Barksdale Foundation, the following scores are indicative of the gross levels of self-esteem.

95 or more = sound self-esteem
under 90 = a disadvantage
75 or less = a serious disadvantage
50 or less = a crippling disadvantage

The Barksdale Self-Esteem Evaluation (SE) No. 69 was administered to both the pregnant and non-pregnant population of the study.

Interviews were held with pregnant students and their partners as well as a control group of non-pregnant females and males. The interviews were conducted on 58 students in all. Questions asked related to school, sex education, in-school counseling, pregnancy, future goals, and sexual activity.

A survey of professionals working in the area of human sexuality and/or family planning, teachers, counselors and school health nurses was administered. The survey included 11 questions on teenage sexuality and pregnancy in Hawaii. Seven questions were identical to questions on the student FLE Survey. The remaining questions were open-ended and asked for suggestions on how to accomplish project objectives (i.e., how to alter FLE curricula). In all 90 surveys were returned in time for computer analysis.

Finally, telephone interviews of professionals in the family planning field and counselors and school health nurses were conducted. The project director acted as the interviewer for all of these interviews. The purpose was to gain further and more detailed data from the professionals and to gain further data as to the pregnancy situation in each school. Ten professionals and ten school health nurses were contacted.

## Needs Assessment Findings

In this report, the findings will only be briefly summarized. A more complete analysis is presented in the Family Life Education and Counseling Demonstration Final Report, available through the State Family Planning Services Section.

The following data taken from surveys, interviews and local statistics indicates: (a) the extent of the teenage pregnancy problem in the Windward Oahu School district; (b) student attitudes, practice and knowledge regarding birth control; (c) factors leading to unintended teenage pregnancies.

Extent of problem:

1. 29% of the high school students have had sexual intercourse, 71% have not;
2. 9.2% of the intermediate school students have have sexual intercourse, 89.2% have not;
3. 31% of the sexually active students have had sexual intercourse by age 14;
4. 65 girls were referred to the alternative education program for pregnant girls in 1977-78 (Continuing Ed. Class Statistics).

5. 87 girls were referred to the alternative education program for pregnant girls in 1978-79 (Continuing Ed. Class Statistics).

6. 64 of the 69 pregnant girls referred to the Kaneohe Alternative program planned to keep their babies (Continuing Ed. Class Stats. 1979).

7. 16 was the average age of the pregnant girls with the youngest 14, the oldest 18 and the mode 17 (Continuing Ed. Class Stats. 1979).

8. 4 of the girls in the Continuing Education Class were married.

9. 19 of 19 pregnant seniors in the alternative education program graduated in the Windward District in 1979.

10. 6 of the 28 pregnant girls interviewed said they planned their pregnancy --21.4% (Interviews of pregnant teens).

11. 11 of the 48 pregnant girls in the FLE survey said they planned their pregnancy--23%.

12. 77% of the reported pregnancies in the Windward District may be said to be unintended (Interviews and FLE survey).

Attitudes:

92% of the students have had sex education (FLE survey).
50.8% received birth control information before 9th grade (FLE).
62% approve of using birth control (FLE).
31% do not approve of using birth control (FLE).
51% of those who do not approve of using birth control are from the Kahuku Schools (FLE).
30% do not use birth control because they fear the physical side effect (FLE).

Knowledge of Contraceptive - Test Scores: (FLE)

High School - 4.2 correct of 9 possible - 46.6%
Intermediate - 2.4 correct of 9 possible - 26.6%
Pregnant Teens - 5.5 correct of 9 possible - 61.5%

Contraceptive Use:

- 0 of the 28 pregnant teenagers interviewed were using birth control when conception occurred (Teen interviews).

## Factors Leading to Unintended Teen Pregnancies

A major purpose of the interviews and surveys was to determine causal factors that led to unintended pregnancy. The administering of the Locus of Control survey was intended to determine if any significant difference existed between the pregnant and non-pregnant females with regard to locus of control.

The mean for the pregnant girls, 13.80 was compared by analysis of variance with that of the non-pregnant girls, 13.68. The F tests showed a significance factor of 0.2314. This score is not significant in a statistical or a psychological sense. Therefore, locus of control must be ruled out as a causal factor for this particular sample.

On the Barksdale Self-Esteem Survey, the pregnant girls in this sample scored higher 61.56, than the non-pregnant girls, 58.67. This score may not be indicative of their sense of self-worth before they became pregnant.

Both of these scores are considered low by the Barksdale Norms and indicate that programs with a focus on the enhancement of self-worth, beginning at kindergarten and continuing through 12th grade, need to be initiated. Low self-worth may indeed be a factor in unintended pregnancy but the point is that many students who don't get pregnant score low on the survey. In fact, only 1 percent scored above 95 on the scale (the score indicative of sound self-esteem by the Barksdale norm). Overall, the score for the whole sample population was 54.34.

What becomes obvious is a set of BELIEF SYSTEMS is in operation that creates the opportunity for unintentional pregnancy to occur. From the interviews a number of inaccurate beliefs regarding pregnancy and sexuality were voiced by students:

"EVERYBODY IS DOING IT."

"IT WON'T HAPPEN TO ME."

The majority of the pregnant teens said that was why they never used contraception.

"YOU DON'T TALK ABOUT IT, YOU JUST DO IT."
"I HAVE TO HAVE SEX TO BE A MAN."
"TO BE A WOMAN, I HAVE TO BE PREGNANT."

Factors found to lead to an unintended teen pregnancy were low self-esteem, poor self-management skills, inaccurate belief systems regarding sexual activity and adolescent pregnancy, uncertainty about goal setting in life, peer pressure, societal expectations, loneliness, a sense of being a victim of life and a desire to make a difference (FLE, Nowicki-Strickland, Self-Esteem Evaluation, Teen interviews).

The respondents on the survey were in agreement that there needs to be more sex education starting earlier, focusing on self-awareness and decision-making skills as well as in-service training programs for teachers and a greater use of outside resources. As a result of these findings, it was decided that the priority for curriculum development would be the kindergarten through sixth grade unit. The K-6 supplements were the first FLE units developed, pilot tested and integrated into the Statewide Health Guide.

## Curriculum Revision and Review

In the early phase of the project, the project educational specialist and assistant reviewed 61 curriculum guides, sex education guides, curricula, and references to select materials for the FLE Unit K-12. Activities and data from 14 resources finally went into the initial draft of the FLE Unit. Input from teachers, administrators and community representatives was solicited through a number of means.

Orientation meetings were scheduled in September 1979, attended by 50 counselors and 45 principals and vice-principals. The purpose of these orientations was to share the findings, recommendations and drafted outline of a FLE Supplement K-12 being compiled for teachers' and administrators' review through the 1979-80 school year. Throughout the 1979-80 school year, orientation meetings were conducted for teachers from all 30 schools in the Windward Oahu District, as well as follow-up meetings to receive teacher evaluation on the suggested K-12 FLE Supplement. All four intermediate and high schools (8 schools received individual orientations. Four orientation meetings conducted during January and February 1980 were attended by 50 teachers representing ten elementary schools in the Windward District. During these meetings with elementary teachers, 23 volunteered to review K-6 FLE Supplement in May and June 1980.

### Windward Health Advisory Council (WHAC)

In early 1980, it was decided with the assistance of the District and State Health Specialists, that an advisory council was necessary to get a more diverse point of view concerning the K-12 FLE Supplements appropriateness for pilot testing. The Windward Health Advisory Council was formed to help plan, implement, and evaluate project efforts. It was important to establish a community network. It was also seen that such a council would assist the project in averting

many controversies that might possibly result from this type of project. And so WHAC was formed. Its members represented DOE and DOH specialists, church representatives, parents, teachers, counselors and health-related community agencies. About 30 people were invited to participate and 16 chose to participate who were respected community members known to the Windward District Office. Windward Health Advisory Council met regularly (four general and eight small committee meetings) during the third quarter to work on completing the Title X FLE Supplement K-12 for scrutiny by the district superintendent, principals, teachers, students and selected PTA groups.

### Content Review and Recommendations by WHAC

The Council was divided into different sections of the school system. Sixteen members divided into three sections: section 1 to handle K-6, one section for 7-8, and one section for 9-12. WHAC agreed that we had to have a K-6 unit in the area of FLE emphasis more on students' position in the family, their discovery of where they come from (their culture), their backgrounds here in Hawaii. The evaluation process took different forms for the different grades.

In 5-6 grades, began actual sex education dealing with pre-pubecense as well as boy-girl relationships and the beginning of decision making re: to have or not to have sex.

The following is a list of criteria used by WHAC in evaluating each lesson in the K-12 Supplement:

1) Did it fit the grade level?
2) Could teacher comfortably do it with some in-service?
3) Did lesson fulfill state requirements?
4) Was language correct and appropriate?

During this review phase some WHAC members voiced concern about some of the values clarification activities, especially in the 7-12 FLE Supplement. They felt this would bring up problems later from the community (which is relatively conservative here in the Windward District) because they felt that parents wanted to be responsible for the values that their children had and that some of the values clarification activities we had included in the 9-12 guide did not express the religious, cultural background of the Windward area. Some activities were changed to avoid dealing with values clarification in the health guide and to emphasize values awareness.

During this period, teachers helped us in evaluating the supplement. We asked for volunteers from the teachers to evaluate it and make recommendations. This period gave us needed input regarding use in the classroom, and we found that the supplement fit very well into the classroom. The only needed change was the FLE Supplement needed to clearly indicate how each activity was related to the stated foundation program objectives, student expectations and the individual health area objectives.

Some problems encountered are more individual per teachers. Some had reservations about using various specific activities because of the specific nature of their classrooms and the specific nature of the ethnic environment in which the school was. In Kahuku area, some teachers evaluating 9-12 Supplement felt that we had too much emphasis in abortion in the supplement due to the large community of Mormons (LDS) and Catholics (RC) living there. We recommended individual teachers peruse the guide and select only those activities which were appropriate.

Another problem we encountered within WHAC was that many felt the lesson language was too explicit, especially in 7-8 Supplement dealing with masturbation and descriptions of the sexual organs so we deleted some of this and changed some of the definitions and descriptions to accommodate the concerns of the WHAC.

The K-6 FLE Supplement was tentatively accepted as well as the 9-12 section. Work is still continuing on revamping the 7-8 Supplement. As a means of incorporating the FLE Supplement into the existing health guide, it was determined that the Supplement be integrated by a separate color code into the existing health guide. Their assistance greatly contributed to the overall success of the project and their commitment continues into the 1982-83 school year to complete work on the 7-8 FLE Supplement as well as continue to review and update the K-6 and 9-12 FLE Supplement.

### Structure of Supplements

For ease in use, the FLE Unit was divided into individual supplements for each grade. The lesson supplements include Hawaii DOE Foundation Program Objectives which are considered central to total personal development, and which come right out of the State of Hawaii Department of Education Foundation Program Objectives for students. Each supplement has six sections and an introduction for the teacher. For each lesson given in a section, the FPO, SPE and related course topics are noted to let the teacher know what educational objectives are being fulfilled by doing that particular activity. This assures the teachers that they are not doing an extracurricular lesson and can fulfill many of the teaching requirements through the FLE Supplement.

Figure 17 demonstrates how the K-6 FLE Supplement is related to the appropriate Foundation Program Objectives and Student Performance Expectations.

The Supplement is intended to provide teachers and students with supplemental activities to support the family life and sex education program for their particular grade level.

The Supplement is designed to develop personal social skills and also health knowledge which will affect responsible decision making. Activities increase awareness of the individual on short-term goals and values as they deal wth health and specifically the area of family life. Self-awareness regarding the feelings, thoughts, and behavior in response to the self and others in the student in the area of family life are dealt with in the lessons.

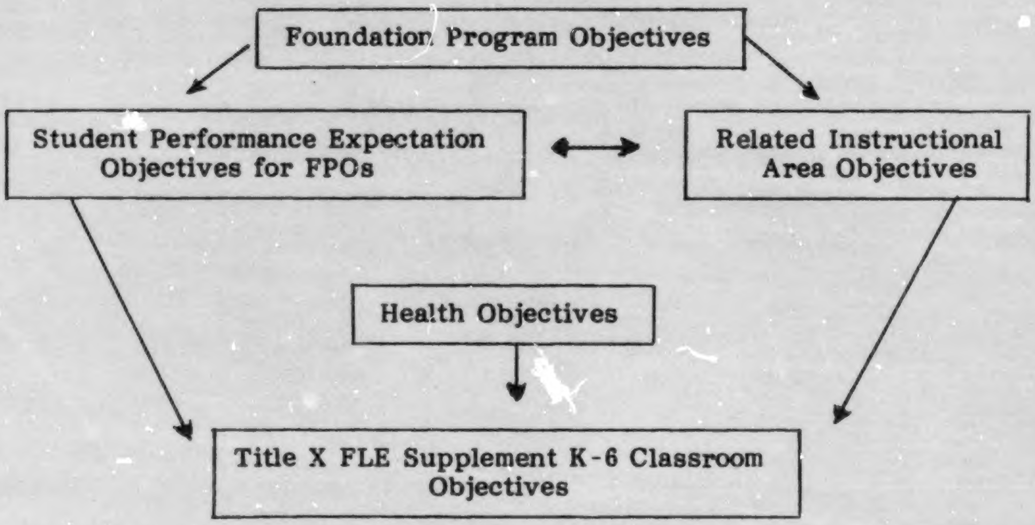

Foundation Program Objectives
Student Performance Expectation Objectives for FPOs
Related Instructional Area Objectives
Health Objectives
Title X FLE Supplement K-6 Classroom Objectives

Figure 17

Relationship among Foundation Program Objectives, Instructional Area Objectives, Student Performance Objectives, Health Objectives, as well as Family Life Education Supplement K-6 Objectives

The activities specifically are aimed at giving the student an opportunity to evaluate their values as well as to evaluate the methods they use in decision making and to develop sound self-esteem, good decision making, and improve self-expression. The family life education supplement was created to increase the necessary social understanding and social skills of the student necessary for healthy interaction with their peers, their teachers, their own families, as well as with the community and society in general. The whole supplement is designed to create an atmosphere of open discussion in order for students to express themselves, to improve the individual student's self-awareness and self-esteem level.

The organization of the lesson supplements for kindergarten through 6th grade was divided as follows:

First, there was a teacher introduction in which the teacher is oriented on the various types of strategies used in the K-6 FLE Supplement. Also in this introduction, the teacher is given an overview of the place of family life education as well as statistics on the problem of teen pregnancies. Finally, the importance of parental consent and cooperation is discussed.

The various sections are as follows:

Section I was an introduction to the family life education supplement, and it gave the teacher different methods to use and to try out in the classroom to see what kind of teaching strategies would work best in their individual classroom. These included everything from open-ended discussion, group activities, individual and group activities, paper and pencil testing, to the actual sharing of thoughts and feelings by students in a group situation.

Section II dealt with interpersonal listening and communication skills. Here we discovered that it was very important in improving the family life and sex education program curriculum that students improve their ability to listen and their ability to communicate.

Section III dealt specifically with building self-esteem and all the lessons in this section deal specifically with the student looking at what it is that he/she needs to do in order to improve self-image.

Section IV dealt with problem solving and decision making and it was during this time and these activities that the student has the opportunity to learn the problem-solving and decision-making process to see the various elements that go into solving day-to-day problems that they meet with in the classroom, playground, at home, with their peers and siblings. Here the student is taught how to reach reasoned solutions for commonly encountered problems through an examination of the facts at hand.

Section V dealt specifically with family, love, and relationships. In this section the elementary student between the ages of about 5 and 12 has the opportunity to look at their families and to see the various types of backgrounds they come from and to see how they fit, how they see themselves in their families as well as how they see the other members of their families and how they relate to them. This section gives the student the opportunity to see the various other relationships in their lives, especially regarding peers and peer pressure, siblings, grandparents, and their cultural background.

Section VI dealt with human growth and development. Between kindergarten and the third grade, the emphasis in the human growth and development section is on the physical development beginning with conception and ending with death. It also deals somewhat with the growth that occurs in the 0-8 year-old child.

For kindergarten through third grade, the human growth and development section encourages visits to farms, zoos and aquariums so that students may observe how man's growth and development compares to that of other animals. The human growth and development section for the 4th, 5th, and 6th grades deals more specifically with human pre-pubescent growth and development. There is an emphasis on how pre-pubescent children relate to each other, i.e., boy-girl, boy-boy, or girl-girl and how they see themselves as they go through the pre-pubescent process.

## Evaluation of FLE Supplements

### Pilot Testing

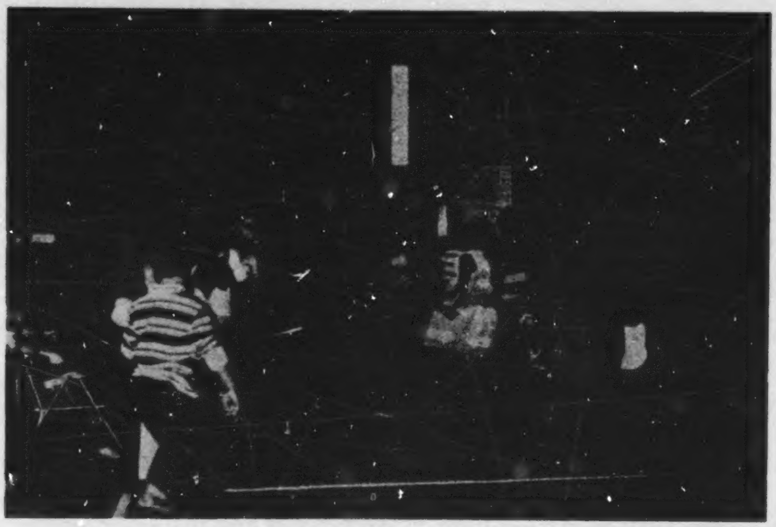
The Family Life Education component of the Title X Hawaii Demonstration worked in close cooperation with the Department of Education Curriculum Specialists and State Evaluation Office concerning the program evaluation phase of the project. During Phase III and Phase IV, we organized a system of evaluation in cooperation with Annette Murayama (District Health Specialist) and Paul Gima, the State Evaluator, who deals with improvements in the health curriculum area. Out of these meetings with the State Office of Evaluation and the Windward District Office, a completed three page evaluation proposal was created for the overall project.

It was decided that the K-6 supplements would be pilot-tested first, as the K-6 DOE Health Guide was due for revision in the following year. Successful materials from the FLE Supplements were to be integrated into this new Health Guide for teachers.

The pilot testing objectives were to determine the appropriateness and the effectiveness of the K-6 grade family life lesson supplements and to identify and demonstrate teaching strategies, techniques and procedures for the classroom teacher implementing the kindergarten through 6th grade family life lesson supplements.

In January 1982, we went to the various schools and spent from one hour to an hour and fifteen minutes going over the purpose of the family life and sex education supplement and receiving suggestions on how best to pilot test the activities during the 1981-82 school year. During these orientation meetings, we recruited 11 elementary schools and 42 teachers in the pilot testing of the lesson supplements for kindergarten through sixth grade.

The retrieval system of the evaluation responses was on a voluntary basis. During the orientation meetings conducted on the use of the K-6 FLE Supplement, we let teachers know how important it was that they fill out one evaluation respnse for each lesson done. Furthermore, we ask that as soon as they had filled the evaluation response, that they send it to the coordinator's office by armored car (the Windward District has an armored car service that travels between each school and the district office each school day.



Classroom testing did not begin for most of the 43 teachers until the end of March 1982 because of existing classroom commitments planned in the beginning of the school year 1981.

We let teachers know that they needed to complete the lessons and evaluations of the lessons by the beginning of May 1982.

What we discovered during the pilot testing period was that it was necessary to support teachers in filling out evaluation forms and in training teachers to aid students in completing their lesson evaluations.

Finally, an example of the "Evaluation Response" follows in order to demonstrate firsthand how easy it is to fill out.

First the teacher puts down the title of the individual lesson. Second, the teacher marks with a check the appropriate section from which the lesson is taken. The tester then writes in their name. The first three questions simply require checks. In the last four questions the teachers were asked to comment, but to be brief.

This model "Evaluation Response" was formed with the assistance of the DOE Office of Evaluation along with the assistance of the WHAC.

The final part of Phase VI will begin in September and continue through the month of September and it deals with conducting orientation for the various other DOE school districts here in the State of Hawaii. In September and also during the month of August, a workshop will be presented for all the schools on the island of Oahu, as well as for schools on the various other islands--Kauai, Maui, Molokai, Lanai and the Big Island of Hawaii--in orienting teachers on how to use the new State Health Guide and specifically the family life and sex education sections.

During the final evaluation (May and June 1982): (1) we reviewed the 42 teacher evaluation responses of each indivdiual lesson completed during the pilot-testing phase; (2) we analyzed the teacher evaluation responses with the assistance of Paul Gima to determine the value and success teachers experienced in using the FLE lesson supplement activities; (3) we recommended certain changes (i.e., recommended changes includedthe need to lengthen teacher orientation and to shift some of the individual activities to different grade levels to increase effectiveness); (4) we gave all student and teacher evaluation responses and recommendations to the DOE State Evaluator, Paul Gima, who took our data in order to determine the validity for statewide incorporation into the newly drafted K-6 Health Guide to be pilot-tested in the 1982-83 school year. It is important to note that the state evaluator determined that our final evaluation phase as well as the overall evaluation model used during the project was successful, efficient and comprehensive. It was recommended that all future projects follow in the Family Life Education component of this Title X Demonstration Project.

One hundred and three evaluation responses of the K-6 FLE Supplement Sample Lessons were retrieved. Of the 77 lessons in the K-6 FLE Supplement, 60 were pilot-tested. Only 2 out of 34 lessons from the first three sections were not pilot-tested (Section I: Introduction; Section II: Communication and Listening Skills; Section III: Self-Esteem) or 6 percent. However, in the last three sections

(Section IV: Problem Solving; Section V: Family, Love and Relationship; Section VI: Growth and Development), 15 of the 43 were not pilot-tested or about 36 percent. This led us to recommend that in the statewide pilot-testing of (1982-83) FLE lessons incorporated in the drafted K-6 Health Guide, more emphasis be placed on orienting and in-servicing teachers more completely in the use of the FLE lessons from the last three sections in the Supplement that are found in the newly drafted K-6 Health Guide. This way it is hoped that we can get more information on the effectiveness and value of these lessons for classroom use in a family life unit.

Other findings included the fact that 78 percent of the lessons were pilot-tested and 22 percent were not; 36 percent of the lessons were pilot-tested once; 26 percent pilot-tested twice; 14 percent with three pilot-testing lessons; 3 percent with four pilot-testing lessons.

Most of the lessons pilot-tested were rated satisfactory to very satisfactory.

## DOE Evaluation and Recommendations for Statewide Implementation

Upon completion of the pilot-testing of the K-6 FLE Supplement in the Windward District, the State Health Specialist drafted a revised K-6 Health Guide which used the same format of the project K-6 FLE Supplement. Approximately 70 percent of the K-6 FlE Supplement was integrated into the drafted K-6 Health Guide and statewide pilot-testing will be conducted in the 1982-83 school year in selected state districts. Much of the integration was based on the evaluation and recommendations of the DOE State Evaluator (Paul Gima), who conducted the final evaluation findings of the Windward District pilot-testing of the K-6 FLE Supplement. All sections of the drafted Health Guide have been revised to use the structure we discovered worked best in the K-6 FLE Supplement. It should be noted that the 30 percent of the K-6 FLE Supplement not integrated into the drafted Health Guide was left out because of duplication, i.e., the drafted Health Guide already had some of the activities, e.g., problem-solving, self-esteem.

With the assistance of the Windward Health Advisory Council, the DOE has tentatively set 1982-83 as the year to complete revision of the 7-12 FLE Supplement for possible use in a newly drafted 7-12 Health Guide, if funds are available.

Finally, besides statewide testing of the elementary FLE activities, the DOE through the Health Education section wants to contract the coordinator of the

FLE Project for various workshops throughout the 1982-83 school year to assist teachers in acquiring FLE teaching strategies that will work for them in the classroom.

### Training Workshops for Teachers

Training workshops on the use of the newly drafted K-6 Health Guide were conducted in August 1982 for Oahu schoolteachers and their evaluation of the workshop received excellent comments. Further workshops are now being scheduled for the 1982-83 school year for teachers statewide with the project's coordinator as the workshop leader. Counting those Windward teachers who received in-service training on the use of the form of the drafted Health Guide K-6, there are now 48 teachers who have been trained.

It should be noted here that during the FLE Project, more than 20 orientations on the findings of the project and four training workshops have been conducted involving more than 200 teachers in the DOE State of Hawaii.

### Achievement of Project Objectives

Overall, the FLE component of the Title X Hawaii Demonstration Project has been extremely successful and its FLE Supplement (70%) has been incorporated into the newly drafted statewide K-6 Health Guide. Further, little opposition has been felt by this component, as well as the other components of the project at Kapiolani-Children's Medical Center and on Kauai. We feel this is truly impressive considering the social climate we live in today.

Another successful feature of the FLE component was the fact that through the DOE State Evaluator (Paul Gima), State Health Specialist (Linda Asato) and the Windward District Health Specialist (Annette Murayama), an objective evaluation proposal to monitor the project was initiated from the beginning as a way to validate the project's objectives and results in order that the K-12 FLE Supplement could be expanded statewide. As of September 1982, however, the K-6 FLE Supplement is the only part of the supplement integrated in the Health Guide. The 7-8 has not been reviewed and approved as yet by the Windward Health Advisory Council (this is scheduled to be completed in the 1982-83 school year). The 9-12 Supplement has been approved by WHAC and what is planned is a pilot-testing period of the FLE lessons in selected high schools during the 1982-83 school year.

One aspect of the project that did not work was in improving counseling services. Attempts were made (meetings with counselors, peer-counseling workshops) to see what could be done to improve the counseling services, but the counselors' overwhelming schedule and workload (e.g., record keeping, educational scheduling, etc.), made it impossible for many of the counselors to participate in in-service trainings concerning improving pregnancy counseling services. Most of the high schools' counselors are responsible for anywhere from 300-500 students, and except for one-on-one disciplinary counseling, most students do not go for personal counseling on their own.

## SECTION V. CENTRAL SUPPORT UNIT

### Functions of the Central Support Unit

The Central Support Unit was established in January 1979 with the hiring of the Tri-Project Coordinator and a part-time clerk typist. The Unit was housed in a single office at the Department of Health adjacent to the Family Planning Services Section. This office functioned as home-based coordinating unit for the overall demonstration project and was managed by the Tri-Project Coordinator.

The functions of the Central Support Unit, as carried out by the Tri-Project Coordinator are listed below.

--Facilitate, support and coordinate the individual demonstration projects. Conduct quarterly meetings of core staff from each project.

--Monitor and evaluate the progress of the projects, their impact and effectiveness in consultation with Branch and Division administrators in the Department of Health.

--Manage the administrative and fiscal support necessary for the conduct of the projects including preparation of contracts, budgets, grant applications, etc.

--Document the projects through quarterly reports, journals, correspondence, statistical research and analysis.

--Offer appropriate support to other community efforts to deal with teen pregnancy.

--Handle public inquiries requesting services for teens, encourage and participate in media coverage of issues relating to teen pregnancy, and represent the projects in the community

The Central Support Unit provided the means whereby the three distinct projects interacted. Communication among the projects was facilitated through core staff (coordinators) meetings, project quarterly reports, telephone contact and field site visits. Inter-project coordination prevented the duplication of services/research, reduced gaps in services, and enhanced information exchange. Although the approaches of the projects were quite different, some evaluation and implementation tools were shared, i.e., the Barksdale Self-Esteem measure. Problems and findings resulting from data gathering, project implementation and evaluation were shared among the coordinators during quarterly meetings. During the meetings the three coordinators and the Tri-Project coordinator discussed current issues and made recommendations regarding problematic situations or how successful findings/approaches could be incorporated in other projects, where applicable.

The Tri-Project Coordinator played a major role in project planning. Administrative direction in planning decision-making was given by the Tri-Project Coordinator to assure that project objectives were being met and that project plans were in compliance with contractual agreements.

Communication between field site offices and the Central Support Unit were maintained through telephone calls and the mail. During the initial planning and final evaluation stages, the Central Support Unit kept frequent communications with core staff providing technical advice and support for their efforts. Direct planning decisions for the individual projects were made more formally by the Tri-Project Coordinator through membership in "advisory boards"; the coordinator participated in the Kapiolani Teen Intervention Project Steering Committee, the Windward Health Advisory Council, and the KTDP Advisory Board.

The Tri-Project Coordinator acted as liaison for the overall project with the Department of Health and Research Corporation University of Hawaii. Administrative problems and/or crises were referred to the Tri-Project Coordinator to rectify with project core staff. Field site visits, other than the regular monitoring visits, were occasionally made to assist in the resolution of problems. When such problems arose, the Tri-Project Coordinator would act as mediator of the dispute by clarifying Department of Health, RCUH and Project expectations and requirements, while considering community concerns.

Fiscal questions/problems which could not be rectified between the individual project and RCUH were referred to the Tri-Project Coordinator (i.e., unpaid bills, questionable expenses). Any major expenses were first cleared with the Tri-Project Coordinator and all telephone bills had to be signed at the Central Support Office prior to RCUH's release of the funds. The Tri-Project Coordinator reviewed monthly fiscal statements for all projects. Each project had separate budgets and were responsible for the management of the funds. After checking budget printouts sent monthly by RCUH, the Tri-Project Coordinator notified RCUH of any errors and followed up on any unpaid expenses.

Quarterly and Annual Reports were required by Region IX. Each project sent a report indicating the progress of their project, objectives met, numbers served and plans for the next report period. The Tri-Project Coordinator, in turn, compiled the three reports and a Central Support Unit Report into one document for Region IX. The Tri-Project Coordinator annually prepared a project proposal and budget, as federal funds were approved on an annual basis, with continuation of funding contingent on federal funding availability. In the last project year, the Tri-Project Coordinator was busy supporting core staff efforts at securing non-federal funding. Funds were requested at the State Legislature for the Kapiolani Teen Intervention Project requring testimonies at hearings from the Central Support Unit and visits to representatives and senators.

The Tri-Project Coordinator with the Family Planning Service Section Supervisor and Chief of Maternal and Child Health Branch designed and prepared a grant proposal for the Adolescent Family Life Demonstration Project administered federally through the Office of Adolescent Pregnancy Programs, Department of Health and Human Services. The project proposed was based on findings of the Hawaii Demonstration Project to Avert Unintended Teenage Pregnancies and federal program guidelines. In October 1982, the office was notified of funding approval for the new Adolescent Family Life Demonstration Project.

Project management and administrative responsibilities made up only one part of the functions of the Central Support Unit. A good deal of time was also spent in networking with other adolescent pregnancy programs, conducting or organizing community awareness activities, data collection and analysis, evaluation, and dissemination of project findings. Below, a number of activities accomplished by the Central Support Unit are described. It should be noted that most of the accomplishments attributed to the Hawaii Teen Pregnancy and Parenting Council (as described later) were done through the Central Support Unit.

## Central Support Unit Activities

### Community Awareness, Training and Dissemination of Project Findings

As programs related to teenage pregnancy prevention were relatively new to Hawaii prior to 1978, one of the first focuses of the Central Support Unit was to provide community awareness and professional training opportunities. Such activities were targeted at social service and health professionals working with adolescents, the general public, adolescents, churches and community organizations. Community awareness and training activities continued to be provided throughout the three project years.

These promotional efforts were to initially introduce the projects, inform the public and professional communities of project progress and findings, train persons working with teens on topics associated with adolescent fertility and dissiminate findings of project final evaluations.

The first community awareness effort was a project brochure designed for the general public to depict the goals of the three projects.

In 1980, the Central Support Unit sponsored workshops on adolescent development given by Dr. Ron Elson. These workshops focused on the stages of adolescent development and common problems associated with the adolescent developmental process. Sixty-five professionals were involved in these training workshops. Evaluations completed by participants were very positive.

Once project evaluation findings were available a concerted effort was made to present this information to the general public and to service providers. Between January 1982 through September 1982, the Tri-Project Coordinator presented 17 seminars, workshops, lectures and professional papers to 500 professionals statewide and nationally. In March, a professional paper on the Demonstration Projects was presented at the National Family Planning and Reproductive Health Association Annual Meeting in Washington, D.C.

The Tri-Project Coordinator was involved in the Maternal and Child Health Branch planning committee for Hawaii's Health Fair '82. The Fair was held in a number of sites statewide for the purpose of health promotion and screening. Brief quizzes on adolescent health, family planning, and pregnancy were developed and a drawing was held for anyone at the Fair who answered the quiz.

The answers to all questions were provided on the reverse side of the quiz; people were encouraged to take the quizzes home. At one of the Fair sites in Honolulu, 190 persons took the quizzes. Prizes were donated by local stores.

During the 1982 Legislative session in Hawaii there was a great concern for the reduction in funding for human services. A statewide coalition of Human Services was established through the Health and Community Services Council to provide information and testimony to state legislators in support of human services. The Tri-Project Coordinator represented the Teen Pregnancy and Parenting Coalition, one of 17 coalitions. An impact statement which summarized the health, social and economic consequences of teenage pregnancy in Hawaii and the impact of federal budget cuts on teen pregnancy programs statewide was printed by the Coordinator. Testimony was prepared and delivered by the Tri-Project Coordinator and Kapiolani Teen Intervention Project Advocates at a pre-session hearing and later for the House Health Committee. Many legislators were unaware of the problems associated with teenage pregnancy.*

The Tri-Project Coordinator participated as a planning committee member for the "Hawaii Conference on Young Women: Meeting the Needs of Adolescent Girls at Risk." This conference was a major event in Hawaii with an attendance of approximately 300 professionals in the health and social service fields. Two workshops for the conference were conceptualized by the coordinator, one on teen pregnancy and the other on teen parenting. The workshop "Teenage Pregnancy: Prevention, Choices and Services" was organized by Marta Levitt-Merin and moderated by Sharon Sutter, Project Principal Investigator. Thirty participants attended the workshop. The Tri-Project Coordinator also participated on the closing panel presented to all conference participants.

---

*Although no Legislative funds were allocated for the Kapiolani Teen Intervention Project in 1982, both the House and Senate have allocated funds for 1983-85. The information and testimonies related to teenage pregnancy and the Demonstration Project were critical factors in successful fund raising.

Lectures and small training seminars were provided to agencies upon request. A letter was sent out to over 200 agencies in Hawaii indicating the availability of Project staff for in-service training or lectures on a wide range of topics including but not limited to networking, teenage pregnancy, and family life education. Agencies which received in-service training included the University's School of Medicine Department of Anatomy and Physiology, UH School of Public Health Reproductive Health class, Central Oahu Youth Services, Leeward Mental Health Center, East-West Center Population Institute, DOH Policy Advisory Group on Family Planning, Farrington High School Quick Kokua Program, and Rural Oahu Family Planning Clinic.

A brief statistical summary of teenage pregnancy and pregnancy outcomes for Hawaiians/part-Hawaiians was prepared for and presented to the Office of Hawaiian Affairs' Committee on Health and Human Resources. This summary was expanded to cover six ethnic groups for a seminar sponsored by the DOH Cultural Awareness Project. Project findings related to ethnic variation of adolescent pregnancy and pregnancy outcomes from these two presentations were covered by the newspaper and the radio.

Representing the project, the Tri-Project Coordinator appeared on a local public television talkshow, "Dialog," with three other professionals from the community who work with pregnant teenagers. Television viewers were able to telephone in questions for the guest speakers. The Tri-Project Coordinator answered questions on family life education, prevention of teenage pregnancy, parent-child communication and so on. The Project was also described on a mini news documentary produced by KITV-4, "Mom, I'm Pregnant," in conjunction with the project and the Teen Pregnancy and Parenting Council. This news documentary was viewed for five minutes at the end of the nightly news broadcast for five days. It covered the consequences of adolescent pregnancy in Hawaii and services available for girls who are pregnant or have children.

The media coverage of the project was most effective in enlightening the community to the problems resulting from premature childbearing and pregnancy, and in creating an awareness that the problem of teenage pregnancy does exist within our own communities.

The Central Support Office received many telephone calls from persons in the community who wanted referrals for services, information on legal issues and statistics regarding teenage fertility. Often students were interested in doing a paper on teenage pregnancy and were able to utilize books and data in the office.

To document the project on film and use as a visual aid for in-service trainings and workshops, a slide-tape show presentation was produced. Three graduate students worked on the slide show for six months under the supervision of Professor S. Gima, Department of Educational Communications and Technology, College of Education, University of Hawaii. The 20-minute slide show vividly described each of the three projects and their corresponding evaluation findings. The resulting production looks very professional and received many compliments from workshop participants.

During a three month extension period in the summer of 1982, the Central Support Unit focused on disseminating project evaluation data and training professionals in networking and family life education. Four workshops were conducted statewide on Maui, Kona, Hilo, and Oahu. The workshops entitled, "Teenage Pregnancy: Prevention and Care Services," was jointly sponsored by the March of Dimes, Health Intervention Program, and the Demonstration Project; nursing credit was given by Hawaii Nurses Association. In all, 134 professionals received training at these workshops. The topics covered by project staff included adolescent pregnancy statistics in Hawaii, the Hawaii Teen Pregnancy and Parenting Council, Networking, and Family Life Education. Participants were asked to work in mock networking councils to develop programs on pregnancy prevention and/or care for adolescents. As a result of these workshops teen networking councils were organized in Hilo and Kona, and the membership list for the Hawaii Teen Pregnancy and Parenting Council reached 65 members.

The extensive dissemination of project results has had long lasting impact on the service community in Hawaii. Agencies are more readily networking together and utilizing service techniques that have proven successful during the three demonstration years.

## Data Collection and Analysis

To determine the extent of the teen pregnancy problem in the project areas and evaluate impact of project efforts on adolescent fertility and related health consequences, it was important to collect and analyze relevant data. Quantitative data such as vital statistics and demographic rates were used to indicate trends in fertility-related behavior; qualitative data collected through field site observations, surveys and interviews explained changes in fertility behavior among project participants and determined whether changes were the result of project activities. The Tri-Project Coordinator was responsible for collection and analysis of data on adolescent pregnancy.

Data on teenage pregnancies, pregnancy outcomes and health repercussions were collected from the Maternal and Child Health Branch computerized data system. A data program was developed in 1979 by the Branch statistician. This program categorizes annual vital maternal and health indicators by age, ethnic group and geographic area. Each year the program is updated from statistics recorded by the Department of Health's Research and Statistics Office. Vital statistics included in this data program are:

single live births
live births
elective abortions
standard fetal deaths
low birth weight among live births
births to unmarried women
infant deaths
congenital anomalies
neonatal deaths
time and incidence of prenatal care
location of delivery
attendant at delivery

In 1981, a Research and Statistics Report using the MCh data program was published by the Maternal and Child Health Branch and Research and Statistics Office/DOH. This report, "A Geographical and Ethnic Group Analysis of Vital Indicators for Maternal and Child Health in Hawaii 1975-79," compiled 5 year averaged rates and numbers of vital MCH indicators by ethnicity and geographic area.* A number of rates were compiled for the adolescent age group (13-17 years of age).

This MCH data system and report laid a foundation for statistical analysis of adolescent fertility and project effectiveness evaluation at the Central Support Unit. Maternal and Child Health data printouts of vital statistics for each year beginning 1976 were used by the Tri-Project Coordinator to compile age-specific rates for three geographic locations relevant to the project (Statewide, Windward Oahu District and Kauai County). Three age groups were compared to estimate the health consequences of adolescent pregnancy and childbearing and eventually verify the impact of project activities on adolescent pregnancy prevention. We compared the < 15 age group, 15-17 age group and 15-44 age group to represent early adolescence, middle adolescence, and the total fertile age group as used by demographers. Much of the trends and demographic rates presented in Section II of this report came from the data collection and analysis done at the Central Support Unit.

The Central Support Unit collected more qualitative data through surveys and interviews. One survey was conducted among 30 pregnant girls statewide for the purpose of learning conscious and unconscious reasons for adolescent pregnancies. Survey findings are presented in Section (see Characteristics of Pregnant Teenagers in Hawaii). The Tri-Project Coordinator did interviews with past and current clients of the Kapiolani Teen Intervention Project to determine client satisfaction and program strengths and weaknesses.

During the final evaluation phase of the project, the Tri-Project Coordinator analyzed data from each of the projects and the Central Support Unit to develop an overall evaluation of project progress. This analysis and pertinent data from the varying projects are presented in Section VI, Overall Evaluation.

---

*Gannaway, et al., 1981.

## Hawaii Teen Pregnancy and Parenting Council (HTPP)

The HTPP Council was organized in 1980 as an outgrowth of the Hawaii Demonstration Project to Avert Unintended Teenage Pregnancy in an effort to network with existing agencies and professionals working with pregnant or parenting teenagers. In October 1980, the Tri-Project Coordinator convened a group of agency representatives serving pregnant teenagers and/or teen parents on Oahu to discuss the needs of these clients.

The objectives of the meeting were to: (1) share experiences and problems in serving this target group, (2) to identify gaps in services or duplications in services to the target group, and (3) to determine whether the represented agencies felt it would be useful to continue to work together as a group. Sixteen agencies were represented at the first meeting on October 1, 1980.

The group chose to continue meeting through the leadership of the Tri-Project Coordinator. During the months of October and November, the group discussed gaps in services and set priorities for the needs considered most urgent. Priorities were set based on a rating sheet and reflected group discussions of teen needs. The priorities identified were:

1. Identifying pregnant teens within the first trimester of pregnancy in order to draw them into the network of services,
2. better coordination with the Department of Education and School Health Branch/DOH including offering information, training, etc.,
3. need for better data on teen pregnancies and better reporting systems,
4. joint agency sponsorship of support groups for pregnant teens, teen parents, post-abortion clients, clients planning to adopt out,
5. need for a variety of kinds of child care for teen parents.

In this first year of the Council, these priorities were discussed at length. Explanations as to why these problems existed, including barriers to service, and recommendations as to how to remedy the situation were made. Guest speakers were invited from a number of agencies to talk about services and research data relating to pregnant and parenting teens.

The orientation of the second year was toward active council work. By this time 30 agencies were represented. The council was formally named in October 1981. It was at this time that the members voted to become action oriented. In that same monthly meeting, council members agreed to link with the Teenage Parents Western Region Education Committee (TAP/WREC). This organization represented 16 western states and organized a major conference on a bi-annual basis. This association strengthened the network to include national ties.

In addition to service priorities determined during the first year of the Council, community awareness and political coalition activities became important focal points for action in the second year of the Council. It was felt that with budget cuts in federal funding there was a need to increase the community's (including policymakers' and legislators') awareness of the teenage pregnancy problem in Hawaii and to support agencies interested in seeking funds from local and federal sources.

The Council recognized three avenues for a public relations campaign:

1. Articles in community newspapers,
2. Update handbook on resources for teens,
3. A week-long mini documentary on a local television news station.

Articles since have appeared on a number of individual projects and programs, none have been done exclusively on the Council. The update on the teen resource guide was postponed until the next fiscal year, as programs were unsure of their continuation. The television media attempt was more successful. A brief document summarizing teenage pregnancy in Hawaii was developed by the Council to present to local news stations. In January 1982, this document was presented by KITV-4 and an agreement was made to produce the mini series "Mom, I'm Pregnant." Lynne Waters, anchor-reporter, was assigned to work with the Council in the production. Six agencies were involved in the documentary. Teen clients and their parents were portrayed to present a realistic view of teenage pregnancy and its consequences in Hawaii and services at a number of agencies were briefly described to inform the public of their availability. The production was televised in May 1982. The Council presented Lynn Waters and KITV-4 with its 1982 Community Awareness Award for producing an important report on teenage pregnancy in Hawaii.

CENTER
CENTER

During the second year of the Council, members also voted to have representation at the Department of Health's Policy Advisory Group (PAG) on family planning. The purpose was to assure that family planning services would continue to consider issues affecting minors and to keep the Teen Council members abreast of important information on family planning sources brought up at PAG meetings. It should be mentioned at this time that the council is made of a wide range of agency representatives, including Catholic organizations, March of Dimes, the Department of Education, youth organizations, etc., so that we were careful not to take stands on issues that might offend religious beliefs and practices or interfere with organizational policies. If an issue, i.e., abortion or contraception, required letters of support, members were requested to write them individually. The Council's strong respect for differences is an important reason for its success thus far.

Funding became a major issue for the Council in the second year with forecasts of funding cuts in many agencies for the 1982-83 fiscal year. Furthermore, the Adolescent Family Life Demonstration Project Bill had been passed by Congress which when appropriated would make almost $10,000,000 available for projects to prevent and care for adolescent pregnancy. The possibility of writing a proposal was discussed during council meetings and agencies were encouraged to apply for these funds. Agencies were assisted in these applications with letters of support and needs assessment information provided Council members.

To increase the Council's effectiveness in obtaining funds for individual agency programs, in December 1981, we joined the Statewide Coalition of Human Services. Sixteen coalitions organized under the leadership of the Health and Community Services Council of Hawaii to meet the legislature ensuring that human services remain a high priority for state funding. The Teen Pregnancy Coalition produced impact statements for legislators, participated in pre-session hearings and the opening of the legislature, and provided testimony for agencies requesting funds.

In May 1982, the Council played an active role in "The Hawaii Conference on Young Women: Meeting the Needs of Adolescent Girls At Risk." Two workshops were organized by Council participants; one on young mothers, which included medical, philosophical and service issues facing teen mothers in Hawaii. The second workshop focused on the adolescent pregnancy prevention and care. The conference was attended by approximately 300 persons.

During the summer of 1982, four workshops on adolescent pregnancy were held on Oahu and the neighboring islands through the joint sponsorship of the Hawaii Teen Demonstration Project, March of Dimes and Hawaii Nurses Association. A total of 134 persons statewide attended. One major purpose of the workshops was to encourage those involved in teenage pregnancy and parenting to develop networks in their own districts or to join the Oahu Council. By September 1982, there were 65 agencies listed as being interested in participating in the Council. Although meeting minutes and agendas are sent out to all interested persons monthly, typically 15-20 persons attend each meeting.

This Council represents a successful networking model in Hawaii. The professional community recognizes its function and necessity. Presently included in the Council are social service agencies, family planning clinics, maternal and child health agencies, physicians, nurses, public health professionals, youth organizations, religious organizations, teachers and so on. Its success is reflected in the accomplishments of the Council to date and the members' concern for the continuation of its efforts.

The Council will continue once the project has been finalized. In June 1982, a new Chairperson was elected. For the third year of the Council, they are planning to start incorporation procedures to assure the future continuation of the Council. Other plans for the year include producing a resource booklet for the community, and continue to work with the media.

With the funding of the Hawaii Adolescent Family Life Demonstration Project in October 1982, the HTPP Council has organized a sub-committee to act in an advisory capacity. The one weakness of the HTPP Council is the lack of parent and teen involvement. It is the goal of the Council to expand its membership to include such community individuals.

## SECTION VI: OVERALL PROJECT FINDINGS

In this section we will present overall project findings as they pertain to characteristics of pregnant teenagers in Hawaii, networking, and reducing adolescent fertility. Data presented in this section are a composite of findings from the three individual projects and the Central Support Unit. These three topics represent major conclusions resulting from the Hawaii Demonstration Project to Avert Unintended Teenage Pregnancy. The purpose of this section is not to evaluate project impact (which has been already covered in Sections IV and V), but rather to present the reader with research and program information important in program planning. Project documentation was considered critical so that other programs could learn from our mistakes and benefit from our successes.

By being aware of high risk characteristics associated with teenagers who have become pregnant, programs can more readily develop methods of early identification for the purpose of primary prevention. The networking approach allows programs to identify high risk or pregnant teens faster and provide more comprehensive care either through referral or direct service. Reducing adolescent fertility, in its purest and most successful form, is the prevention of first pregnancies among young women by eliminating factors (i.e., poor self-esteem, poor family communications) that are defined as high-risk characteristics.

### Characteristics of Pregnant Teenagers in Hawaii

The findings of two separate attempts by the Project at identifying high-risk characteristics of pregnant teenagers are presented below: (1) Results of the Adolescent Motivation for Pregnancy Survey conducted by the Central Support Unit and (2) a psycho-social assessment done on Kauai of teen clients in the Family Support Services Program. The findings of these studies indicate that more often than not a teenage pregnancy is associated with many other personal, psychological and interpersonal problems. These problems need to be considered in planning intervention services (i.e., counseling and education).

### Adolescent Motivation for Pregnancy Survey

As part of the project, an adolescent motivation for pregnancy survey was conducted in April 1982 to characterize the pregnant teen, document their response to the pregnancy and help pinpoint causal factors involved in teenage pregnancy in Hawaii. This survey was designed by Susan Speraw, R.N., a Master's candidate in Nursing at UCLA; only one question on adoption was added for use in Hawaii. The confidential questionnaire was sent out to all alternative schools statewide and to special teen programs. In all, 30 questionnaires were returned completed from Kauai, Waimanalo, Hilo, Honolulu, and Kahuku.

The questionnaire contained 28 open-ended questions. The answers were analyzed at the Central Support Office. The following is a summary of the findings. Percentages do not always equal 100 as respondents left some questions blank.

### Survey Findings

The mean age of the respondents was 16.1. Of the 30 respondents, 77 percent were single, 10 percent were married. At the time of the survey, 10 percent of the girls were in their first trimester, one-third were in their second trimester, 37 percent were 7-9 months pregnant and 20 percent had already delivered. Sixty percent of the respondents were living at home with their parent(s). Of these, 39 percent were living in single parent homes. Ten percent were living with their husband/boyfriend, 7 percent with siblings, 17 percent with other relatives and 3 percent were at a residential home for unwed mothers.

The ethnic composition of the respondents was fairly consistent with the ethnic proportions of pregnant adolescents in Hawaii: Hawaiian/part-Hawaiian teens accounted for 40 percent of the respondents, Filipinos 23 percent, Caucasians 13 percent, 3 percent were Japanese, 10 percent were mixed non-Hawaiians. No Samoans responded to the survey. This is surprising as the rate of teen pregnancies among Samoans is high and one of the responding alternative schools (Kahuku) is in a geographic area with a large Samoan population.

Respondents varied in their reaction to their pregnancy as a teenager. Almost half (46%) had negative responses such as "it is too early," "can't finish goals," "can't socialize." Although many responded negatively, many qualified their statements by adding "but we'll make it." Positive responses were attributed to 39 percent of the girls with comments such as "it's good," "I want the baby," "I want a healthy baby."

To clarify attitudes and values regarding early childbearing, questions were included on ideal age at first birth, mother's age at first birth, and judgments on why teens get pregnant.

Table 24 indicates the responses to ideal age at first birth. Only 7 percent believe that the best time to begin childbearing is before age 18.

Table 24

What do you think is the best age
to have your first baby?

| Best Age | % of Responses |
|---|---|
| Under 18 | 7% |
| 18-23 | 55% |
| Over 24 | 21% |
| No definite age, when natural | 17% |

Research in the United States has shown a correlation between mother's early age at first birth and daughter's teenage pregnancy, indicating a generational cycle.* It was not then surprising to find that 24 percent of the respondents have mothers who gave birth as teenagers (before age 18). An additional 45 percent of respondents' mothers gave birth between the ages of 18 and 23 and 21 percent after age 24.

Respondents were asked to list reasons why they believe teens get pregnant. Table 25 includes the most commonly expressed reasons and indicates the percentage of respondents mentioning each particular reason. More than one reason was listed in many instances. A total of 16 reasons was given, the top five are listed in the table.

Seventy-three percent of the pregnancies to survey respondents were unplanned; 27 percent were planned. Of the planned pregnancies, 54 percent

---

*Allan Guttmacher Institute, Teenage Pregnancy: The Problem that Hasn't Gone Away (New York, 1981).

Table 25

Why do females your age get pregnant?

| Reason | % mentioned |
|---|---|
| To escape problems at home or with parents | 23% |
| To keep boyfriend/bring closer | 30% |
| Unplanned, just an accident | 20% |
| To have someone (baby) to love | 17% |
| To spite parents. | 10% |

planned the pregnancy because they wanted a baby, another 23 percent felt that having a baby would improve their relationship with partner.

One question was designed to establish underlying psychological reasons for the pregnancy. The respondents were asked if in the past year there had been anything that happened that made them feel especially sad or unhappy. This question tests the fertility replacement theory hypothesized by the Kapiolani Teen Intervention Project that when girls have feelings of loss, they may unconsciously attempt to replace the loss through a pregnancy. Of the 26 girls who responded to the question, 77 percent said they had experienced an especially sad situation, 23 percent had not. Circumstances that made them unhappy included partner/spouse problems (55%), death of a close relative (10%), family conflicts (30%), and school problems (3%). Family problems mentioned were parent-child communication gaps, sibling rivalry/jealousy, and running away from home. Partners' breaking up relationships, going out with other girls or going away were among the problems related to partners which made respondents unhappy.

A number of questions related to the pregnancy and how they expected the baby to affect their lives. Being pregnant made 30 percent of the girls feel they must be more responsible and mature, 27 percent noted a change in their social life, and 10 percent have changed or delayed future career goals. For 23 percent of the girls, having a baby will make them feel more independent and responsible, while 30 percent believe they will have less freedom. Seventeen percent of the girls do not think having a baby would affect their lives at all.

Since becoming pregnant, 37 percent of those surveyed felt that their relationships with parents, friends, and male partners have improved. In 43 percent of the responses, the girls felt that the best thing about being pregnant was that it brought them closer to their male partner and family. Another 17 percent believed that the best thing about the pregnancy was that it made them more aware of the world around them and more realistic. For another group (17%) the pregnancy improved their self image (i.e., more mature, independent, courageous, proud, noticeable, determined). In contrast to those who improved family relationships, 23 percent said that the worse thing about the pregnancy was the resulting family problems. Only one respondent stated she felt ashamed.

Table 26 illustrates partners' reaction to the pregnancy as indicated by the respondent. It should be noted that these answers are perceptions of the female respondents, not of the partners themselves.

Table 26

Partners' Responses to Pregnancy

| Response | Percent |
|---|---|
| Happy | 85% |
| Wanted respondent to have abortion | 4% |
| Angry | 7% |
| No response from partner | 4% |

Since the pregnancy, 73 percent of the respondents stated that partners changed their behavior. For 95 percent of the girls who noticed a change, the partners' behavior improved. Only one girl responded that her relationship worsened.

Families initially reacted negatively to the teen's pregnancy in 63 percent of the cases and positively for 37 percent. Families responded with confusion, disgust, disappointment, anger, and shock, on the one hand, and happiness and patience on the other. After the initial reaction to the pregnancy, 83 percent of the parents acted positively, only 17 percent continued to respond negatively.

During pregnancy, emotional support was given to the girls by partners in 40 percent of the cases, parents in 30 percent of the cases, other relatives 17 percent and friends 13 percent.

Several questions were asked to elicit responses on attitudes and expectations regarding motherhood. Forty percent expected motherhood to be difficult and challenging but also very valuable and good. Others (23%) expect motherhood to be hard work, tiring, a lot of responsibility with many worries. Being a mother for 63 percent of the girls means caring, loving, and "bringing up a child in the best way possible." Seventeen percent think being a mother will be merely hard work, tiring and time consuming. Being a mother makes 7 percent of the respondents feel "old."

The best thing about being a mother for 57 percent of the respondents will be caring for and loving the baby. Twenty-one percent of the responses indicated that being a mother will improve the respondents' feeling of worth and perceived motherhood as an achievement in their lives:

> "The best thing is being able to have something to show that I accomplished."

Asked what the worst thing about motherhood, 24 percent of the teens stated that there was nothing negative about being a mother. The care of the child and the hard work associated with motherhood was mentioned for 52 percent of the respondents. Only 7 percent recognized financial problems as a major concern.

The last question pertained to attitudes toward adoption. The survey participants were asked "Have you ever considered adoption as an option? In 72 percent of the responses the answer was "no," only 6 percent said they had and 3 percent misunderstood the question. Attitudes relating to adoption are best described by the respondents themselves. Table 27 provides a list of reasons stated why would or would not consider adoption.

## Conclusions of Survey

The attitudes, expectations and feelings portrayed in this survey are of teens who have decided to continue their pregnancy. Most plan to keep

Table 27

Reasons why Respondents would or would not Consider Adoption

| Reasons | Frequency of Responses |
|---|---|
| Yes, I have considered adoption: (Total) | 2 |
| 1. "It would assure a better life for the baby" | 1 |
| 2. "I wasn't ready for the baby" | 1 |
| No, I would not consider adoption: (Total) | 21 |
| 1. "I want to keep the baby" | 4 |
| 2. "I don't want to give my baby to a stranger | 3 |
| 3. "I can't give up my own child" | 3 |
| 4. "I wouldn't like growing up wondering where my child is, what he's like" | 1 |
| 5. "If you bring a child into the world, you should try to care for it" | 1 |
| 6. "My boyfriend and relatives didn't like the idea of adoption" | 1 |
| 7. No reason given | 8 |

the baby. It appears that teens receive a lot of support, understanding and love once initial shock of the pregnancy subsides. They perceive the pregnancy and motherhood as a means of attaining maturity, independence and improving family and/or partner relationships. The baby itself brings feelings of self-worth, accomplishment and responsibility. Many unrealistic expectations of motherhood are indicated including the belief that being a mother will not change their lives or lack of concern for finances required of a parent. Many of the unrealistic or negative expectations of motherhood may put the teen at high risk for child abuse or neglect.

It appears that teenage pregnancy is often a symptom of and sought as a solution to other problems in a girl's life. Poor family relations, poor self-esteem, a personal loss, lack of future goals, or partner problems may be major underlying causes leading to a teenage pregnancy. And although 73 percent of the pregnancies to respondents were said to be unplanned, factors surrounding the pregnancy may suggest possible conscious or unconscious intention.

## Family Support Services Psycho-Social Assessment

The following is [illegible] description of pregnant teens on Kauai taken from the psycho-social assessment screening conducted by Family Support Services Program.

Between July 1 and December 30, 1981, 52 females 18 and under were provided services by the Family Support Services Project at Wilcox Hospital, Lihue, Kauai. Twenty-one percent of the teen clients were from Kapaa area, 31 percent from Lihue, and only 2 percent from the Waimea area. Forty-six percent received initial assessment prenatally, while 54 percent were assessed at the time of delivery. Thirty-one percent of the teen clients were assessed in September 1981, with 69 percent being assessed after September. This reflected the impact of the two new teen outreach workers in the FSSP program, and the increasing effort made to contact all pregnant teens.

For 89 percent of the teens this was their first pregnancy. Eleven percent were repeat pregnancies. This was far below the DOH Kauai statistics of 22 percent repeat pregnancies for teens in 1981. At the time of assessment, 52 percent of the teen clients delivered their first infant, and 4 percent had delivered their second. Only 8 percent (4) of the clients had experienced elective abortion. This seems quite low since approximately 50 percent of the teens who get pregnant on Kauai choose elective abortion. Perhaps this indicated that FSSP was seeing clients who chose to continue the pregnancy and did not see those who chose to have an abortion.

Table 28 has the ethnic identity of the client teen mothers and their partners (father).

Caucasian, Filipino and part-Hawaiian ethnicity of mother were over-represented among teen clients compared to Kauai County's ethnic make-up; Japanese teens were under-represented.

Table 28 showed a disproportionately higher number of Filipino and Caucasian males and low percent of Hawaiian and Japanese males.

Ninety percent (47) of the clients were between the ages of 15 and 19, 10 percent (5) were 15 and younger. For 38 percent of the teens, 12th grade

Table 28

Ethnicity of Fathers and Client Teen Mother

| | Father | | Teen Mother | |
|---|---|---|---|---|
| Ethnicity | Frequency | Percentages | Frequency | Percentages |
| Caucasian | 16 | 34% | 17 | 33% |
| Filipino | 16 | 34% | 25 | 29% |
| Hawaiian | 6 | 14% | 11 | 22% |
| Japanese | 4 | 9% | 3 | 6% |
| Mixed | 2 | 4% | 5 | 10% |
| Other or Unknown | 8 | 15% | 0 | - |

was their last year of school, 38 percent was 11th grade, 16 percent was 10th grade, and 8 percent was 9th grade and below.

Mental Assessment:

Fifty-four percent of the teen mothers/mothers-to-be had an adjustment reaction to the pregnancy or birth. Only 35 percent of the parents of the teen clients showed adjustment reactions.

Twenty-one percent of the teen clients have a history of present depression or a problem. Ten percent had suicidal ideas at the time of the assessment.

Emotional Assessment:

Thirty-one percent of the teen mothers/mothers-to-be and fathers had a history of child abuse and neglect in their own childhood. Only one mother had a history of child abuse and neglect with present children.

Drug and alcohol use was defined as abuse if the substance causes problems among partners. In 50 percent of the cases, there was a history of present alcohol abuse: 6 percent by the mother only, 25 percent by the father, and 19 percent by both the teen client and partner. There was a history of drug abuse in 63 percent of the cases: 19 percent mother only, 19 percent father, and 25 percent for both mother and father.

In 88 percent of the cases, the worker assessed that either one or both of the partners had unrealistic expectations for the pregnancy and birth. Eighty-three percent had poor self-concept, 50 percent of which were true for both the mother and father.

Behavioral Assessment:

Parent-infant bonding problems were present in 78 percent of the cases, 58 percent of these were between the mother and infant.

Table 29 indicates percentage of history of criminal, violence, or other inappropriate social acts.

Table 29

Percentage of Inappropriate Social Acts

| | Criminal Record | Violence | Other |
|---|---|---|---|
| Mother | 3. | 7.7 | 7.7 |
| Father | 3. | 1.9 | 3.8 |
| Mother & Father | 7.7 | 17.3 | 17.3 |
| Total | 15.3 | 26.9 | 28.3 |

Stresses:

Ninety-four percent of the clients had parents with income problems. Thirty-eight percent were on welfare.

Fifty-eight percent of the mothers and infants were assessed as high medical risks.

Ninety-two percent of clients had heavy child-care stress. Eight percent were involved with child protective services.

Seventy-one percent of the client cases indicated marital discord in the teen mother's family.

Some 19 percent of the teen clients were isolated from a support system. Eighty-three percent of the teen clients had boyfriend support, 90 percent had parent or extended family support.

## Conclusions of Psycho-social Assessment

Pregnant teens and their partners served by Family Support Services on Kauai are characterized by histories of depression, drug and/or alcohol abuse, violence, and child abuse. The majority have unrealistic expectations of pregnancy and birth, poor self-concept and infant-bonding problems. Life stresses typical of these teenagers include income problems, medical risks, heavy child care, and parental marital discord.

## Networking

Although the networking approach was most prominent in the Kauai Teen Demonstration Project, networking became an important component of each project and the Central Support Unit. It was found that networking could be accomplished on both Statewide and community levels.

Networking was best achieved with the formation of an interagency body that met on a regular basis. Although networking can occur informally with interagency cooperation, the effects are not as significant. A formal organization facilitates structured interaction and provides coordinating leadership. It was found that strong leadership is needed to keep lines of communication open between the various agencies.

The networking approach serves a number of important functions in terms of program implementation, community awareness and meeting the service needs of clients. It is important to know the community resources and programs in the area before planning any program design or revisions. This reduces unnecessary duplication and unfortunate gaps in services. In a networking group, each agency is given the opportunity to discuss their present program services and new information is shared. As a group, community needs can be determined from more than one service perspective. The network group can be utilized in an advisory capacity to provide a broad base perspective on program plans and implementation concerns.

Networking allows for community involvement in program planning, monitoring and evaluation. A network approach is most important in a potentially controversial project. With community participation (including religious, civic and political leadership, professionals, and concerned individuals) community opposition is avoided. This approach gives the community a feeling of accomplishment and pride in the project. Project plans that have community involvement will more likely conform to community idiosyncratic conditions (i.e., cultural, religious, socio-economic, etc.).

Because the problems faced by pregnant teens are multiple, networking allows for a more comprehensive continuum of services for each individual client. Agency workers and community representatives will be more aware of the types of services available in the community and be able to make appropriate referrals. Networking improves inter-agency referrals and cooperation.

Through a network approach, there is great potential for joint community awareness efforts, such as health fairs, conferences, and media productions. During network group meetings guest speakers can provide in-service type training for members on specialized topics.

Networks of agencies and individuals can provide heavy ammunition for changes in laws, new policies and support for program funding. Requests for funding will be given stronger consideration if backed by letters from each member of a network.

Probably the largest problem faced in networking is the feeling of competition among agencies. This occurs most often among agencies serving the same target group or providing the same service.

## Reducing Adolescent Fertility

### Primary Prevention

While three-quarters of annual teenage pregnancies in Hawaii are first pregnancies, programs must focus on primary prevention to make any major impact on adolescent fertility rates. The prevention of first-time teenage pregnancies results in the greatest savings in terms of health, social and economic costs. Services directed at already pregnant teenagers without a primary prevention component attempt to deal with the teenage fertility problem through a bandage-effect solution. By the time the pregnancy occurs the damage is done—the teen is in crisis, she exhibits high risk characteristics which make her vulnerable to a second pregnancy, family inter-relations have been altered and the quality of the lives of the teenage mother and her baby become limited by circumstantial conditions.

The Hawaii Demonstration Project combined primary prevention with pregnancy care in both the Kapiolani Teen Intervention Project and the Kauai Teen Demonstration Project. The Family Life Education and Counseling Demonstration Project was a primary prevention approach in the broad sense of the term.

It was found during the project implementation process that primary prevention efforts were potentially far more controversial than teenage pregnancy care programs which included secondary prevention measures. Apparently, it was all right to discuss reproduction, sexuality and contraception with pregnant teenagers, but there were some concerns aired about education of teenagers who have never been pregnant.

The project's impact on fertility rates for adolescents did not reach its objective of 25 percent reduction for a number of reasons.

Much of the primary prevention programs conducted were targeted at high school students who were for the most part aged 15 to 17. Yet statistics indicated that over half of the teenage pregnancies occurred to girls 15 years of age and younger. Education and counseling intervention was just not available to girls before they developed high-risk characteristics or during their early adolescent years when they were exposed to the risk of pregnancy.

Through the networking approach to program planning, particularly on Kauai, there was a tendency for network participants (who were mostly service providers) to direct project efforts at persons in crisis, i.e., pregnant and parenting teens. With limited funding resources, it was important to community members to serve teens so obviously in need of care. It was more difficult for service providers to visualize a pregnancy which has been prevented.

The third reason why fertility was not reduced to meet project objectives is that most programs in the State relating to teenage pregnancy are pregnancy care oriented. A great deal of attention is given to girls once they do become pregnant. For girls who are looking for attention, the one sure way they will receive care is after a pregnancy occurs. This also appears true within the family. Once the initial shock of the pregnancy wears off, pregnant girls are treated more maturely and a great deal of attention is directed at them. Pregnant teenagers are accepted among peers and are often looked up to as someone important or older. Little, if any, support is given to girls who do not get pregnant, as most service programs are crisis and intervention oriented.

## Going Beyond Family Planning

To prevent first or subsequent pregnancies among adolescents, it is crucial to go beyond the provision of family planning services. As was mentioned in the section on characteristics of pregnant teenagers, there are a number of root causal factors associated with these pregnancies. Interviews indicated that teens were aware of birth control (although misinformation on birth control was quite common). Often teens chose not to use birth control for a number of reasons such as not believing it [the pregnancy] could happen to them, did not want it to look as though the sexual experience was pre-planned, fear of side effects, etc.

To prevent teenage pregnancies it became obvious that the focus of services for teens must address a more comprehensive perspective. Family life education had to begin in kindergarten and go through to the 12th grade if there was to be an impact on teenage fertility. Family life education would expand the traditional sex education focus on reproduction and contraception, and begin to deal with interpersonal communication, decision-making, problem-solving, interpersonal relationships (male-female, familial and peer), teenage pregnancy and its consequences and adolescent development. This educational approach provides students with skills that assist them in making more responsible decisions, understanding the consequences of their actions, and improve communications with parents and peers.

Counseling intervention must also go beyond family planning and address underlying problems which may put the girl at risk of a pregnancy.

In seeking funds to continue individual projects, we found it difficult to break through the concept that pregnancy prevention equals family planning. We were often told that we duplicated services within family planning clinics, although we provided no contraceptive devices or medical services. To find funds we went through a process of re-educating state legislators, public health administrators and private funding agencies.

# Conclusion and Recommendations

## Conclusion

The Hawaii Demonstration Project to Avert Unintended Teenage Pregnancy tested three approaches to the prevention of adolescent pregnancy. A community-based networking approach successfully developed a network of agencies to plan, implement, monitor and evaluate unique teenage pregnancy programs. A parenting/child care lab class has been developed in one high school and continues today through local funds. Interagency linkages were organized which improved the client identification process and provided a support network for teens who were pregnant, parenting or at risk of pregnancy.

The rate of teenage repeat pregnancies was reduced well beyond project objectives through education and counseling intervention in a major OB-GYN hospital. A teen advocate component was most effective in conducting follow-up, encouraging teens to participate in project activities and providing clients with successful role models.

Family life education K-6 supplements to the Department of Education's Health Curriculum were produced with community participation in the selection of appropriate curricular materials, structure of the supplements, and evaluation of pilot-testing.

A Statewide council of agency representatives and individuals was formed to facilitate interagency networking, conduct community awareness efforts, and to share information relevant to program needs assessment and planning. This networking council has confirmed the need for statewide coordination of programs dealing with teenage pregnancy and parenting.

The project found that there is a need to target prevention programs at children before they develop characteristics which will make them vulnerable to becoming pregnant. Our young people in Hawaii must learn of the long-range impact teenage pregnancies have on all involved. We need to help our youth feel better about themselves and meet their full potentials as adults and parents. This project has demonstrated several effective methods of reaching out to Hawaii's youth and helping them to prevent a potentially tragic event, one which planned at a more appropriate time will be a wondrous and joyous occasion.

This demonstration project can be utilized in the community as a model for program planning, from the perspective of not only our successes but also from the mistakes we made along the way. We can only feel that the community has gained insight into the problems related to teenage pregnancy and taken its first steps toward the prevention of pregnancies to adolescents.

## Recommendations

The following recommendations come from overall project findings. Additional recommendations are made in individual project final reports.

1. To reduce adolescent pregnancy rates in a small community, it is recommended that project activities strongly focus on primary prevention. Although the effects of the prevention program are not immediately visible, the long-term impact can be significant. It is easy for adolescent pregnancy programs to drift toward pregnancy care, since this is a visible problem in the community. This direction, however, will result in relatively little impact on the overall problem of adolescent fertility. Providing services only for pregnant adolescents may in fact encourage first-time pregnancies to teens needing attention and care.

2. Attempts to prevent teenage pregnancy must go beyond family planning. Teenage pregnancy is often associated with a number of personal and interpersonal problems or results from inexperience in making major decisions or solving difficult problems. Prevention programs must strike at the source of the problems, in the areas of communication, family and peer relationships, and so on.

3. Parents and teens need to be involved in programs as clients and in planning, monitoring and evaluation. This will ensure that programs fit the needs of the community. Parents should be involved in the family life education programs at schools. This will help parents feel a part of their child's development in this very important area.

4. Evaluation planning should be included in the initial planning phase of any program. Prior to program implementation measurable objectives must be designed and specific evaluation instruments

developed to test program impact. Evaluation instruments should include methods for collecting baseline data, pre- and post-tests, intake forms, client satisfaction evaluations, surveys, follow-up guidelines, etc. A separate final evaluation phase of the program should be included in the project design. External contractual evaluation may be beneficial to limited programs. This allows program staff to focus on program implementation and administration. In the planning phase, outside evaluators would plan the evaluation and design evaluation instruments; in the evaluation phase, they would conduct the evaluation.

5. Services for counseling, health education and contraception should be made more accessible and acceptable to teens. For many adolescents the decision about sexual activity, contraceptive use, and pregnancy are the first major life decisions they try to handle without parental involvement. Since adolescents tend to be in school and live at home, their time is not always their own. Making an appointment to get quality reproductive information or contraception represents a degree of advanced planning and a willingness to take responsibility for their actions. This represents a big step toward maturity, one which requires a great deal of support. These services to teens need to be available during after-school hours and within the school system to show teens that we want them to use the services and respect them for their responsible behavior. Follow-up services are important to reinstate our support to teens for such responsible behavior.

6. It is recommended that prevention activities be targeted at younger ages including elementary and intermediate grade levels. Project findings show that by the tenth grade many teens are already sexually active or pregnant.

7. Preventive programs should focus on the adolescent male and include male staff in direct services. Not enough attention has been paid to the male perspective of a teenage pregnancy. Male teens also need the availability of a counselor or educator who can provide accurate, confidential and non-judgmental information. Programs directed at male teens can help them to be more responsible about their sexuality.

8. Statewide leadership is needed to coordinate teenage pregnancy and parenting programs.. It is recommended that the Department of Health establish an Adolescent Health Services Section to coordinate services, provide statistical data and conduct health promotion activities related to adolescent health care. Presently teens are categorized as children in primary health care and as adults in family planning. The special needs of the adolescent are left unserved and uncoordinated.